

From: Konieczny, Katherine
To: Batra, Rakesh; Jerez, Catherine; Rosenbaum, Matthew; Mills, Brian
Cc: Drake, Christopher; Mumme, Bettina
Subject: Questions for PJM and Dominion
Date: Monday, October 16, 2017 1:51:20 PM
Attachments: Questions for PJM and Dominion 2017-10-16.docx
Importance: High

Following the Friday meeting, we tried to capture the technical questions that were raised in a short list for PJM and Dominion. That list is attached. Rakesh, because you sent the last round of questions to PJM and Dominion, it would be consistent if this next list also came from you. (b) (5)

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Considering the tight timeline DOE has, the document requests an initial response by COB Wednesday the 18th, with an opportunity to submit more complete information by Monday the 23rd. (b) (5) We defer to OE on how difficult it will be for PJM and Dominion to put together responses.

Because we are (b) (5) asking for PJM and Dominion's answers by COB Wednesday, please send this document out as quickly as you can--this afternoon if possible.

Thank you,
Kathy

Katherine (Kathy) Konieczny
Acting Assistant General Counsel for Electricity and Fossil Energy
Forrestal 6D-033
(202) 586-0503
Katherine.Konieczny@hq.doe.gov

PJM and Dominion:

DOE seeks more information to better understand alternatives to Yorktown Unit 1 & 2 operation. Please provide an initial response to the following questions in writing no later than Wednesday, October 18. Additional information, if any, should be submitted by Monday, October 23.

Demand Response

- What is the maximum power (in kW or MW) that Dominion can save, under ideal conditions, through its demand response program?
- What is the estimated minimum cost (or cost range) of reaching the maximum demand response? Who would pay that cost?

Distributed Generation Resources

- What is the maximum power (in kW or MW) that Dominion can save, under ideal conditions, through distributed generation resources (e.g., rooftop solar)?
- What is the estimated minimum cost (or cost range) of reaching the maximum distributed generation? Who would pay that cost?

Battery Storage Resources

- What is the maximum power (in kW or MW) that Dominion can save, under ideal conditions, through its existing battery storage resources?
- How long does it take to procure battery storage, and what is the minimum price per MW?

Other Alternatives

- How much alternative power would Dominion need to mobilize to preserve reliability during a transmission outage and without running either Yorktown coal unit?
- How much would that mobilization cost? Who would pay that cost?

From: [Drake, Christopher](#)
To: [Konieczny, Katherine](#)
Cc: [Batra, Rakesh](#)
Subject: RE: Questions for PJM and Dominion
Date: Monday, October 16, 2017 3:52:24 PM
Attachments: [Questions for PJM and Dominion 2017-10-16v2.dox](#)

Kathy,

(b) (5)

I revised the question document accordingly, as attached. Rakesh, if you have further thoughts on it, please let us know.

Thanks,
Chris

-----Original Message-----

From: Batra, Rakesh
Sent: Monday, October 16, 2017 3:00 PM
To: Konieczny, Katherine <Katherine.Konieczny@HQ.DOE.GOV>; Jereza, Catherine <Catherine.Jereza@HQ.DOE.GOV>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>
Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>
Subject: RE: Questions for PJM and Dominion

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(b) (5)

PJM submitted an answer to the comments filed by Sierra Club on September 6, 2017, in the above referenced proceeding ("Comments") in response to PJM's Order No. 201-17-2 ("Order") renewal application ("Renewal Application"). The next 2 paragraphs are direct quotes from the filing.

Currently, approximately 14 MW of PJM Demand Response is available in the North Hampton Roads area on the Virginia Peninsula. Since usage is limited, PJM will only implement DR as needed post-contingency to restore customer load.

Currently, Dominion Energy Virginia has about 20 MW of Demand Side Management capabilities in the peninsula in the form of remote air-conditioning control as well as the ability to curtail a large industrial customer up to 75 MWs for transmission emergencies. This air conditioning control is limited to a total of 120 hours and for 30 days during the summer months. Dominion Energy Virginia will reserve this capability for the highest need days to reduce load in the North Hampton Roads area on the Virginia Peninsula.

Moreover, Appendix II of the Application details the availability of other generation in the North Hampton Roads areas of the Virginia Peninsula and again specifies the availability of demand response and other information noted above and concludes: "Thus while PJM and Dominion Energy Virginia have a very limited amount of demand response available of the peninsula, it is not sufficient to ensure reliable service."

Please let me know if you feel otherwise.

Thanks,
Rakesh

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From: Konieczny, Katherine
Sent: Monday, October 16, 2017 1:51 PM
To: Batra, Rakesh <Rakesh.Batra@HQ.DOE.GOV>; Jereza, Catherine <Catherine.Jereza@HQ.DOE.GOV>;

Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>
Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>
Subject: Questions for PJM and Dominion
Importance: High

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- According to PJM's RTEP Input Assumptions and Scope Whitepaper, Dominion could have a maximum of 130 MW of distributed solar generation available during the summer. Is that number still accurate? If not, what is the correct number?
- Neither PJM nor Dominion stated that alternative resources besides demand response and distributed generation, including battery storage, would be available to offset power loss during a scheduled transmission outage. Is that still accurate? If not, what alternative resources are available, and how much power could they provide?
- According to the Summary of Findings issued alongside DOE Order No. 202-17-4, the Yorktown coal units offset 950 MW of load that could be shed in a transmission outage. Is that number still accurate? If not, what is the correct number?

From: Konieczny, Katherine
To: Drake, Christopher
Cc: Batra, Rakesh
Subject: RE: Questions for PJM and Dominion
Date: Monday, October 16, 2017 3:55:12 PM

I'm fine with that approach. My only comment is that there appears to be a missing quotation mark in the first bullet.

-----Original Message-----

From: Drake, Christopher
Sent: Monday, October 16, 2017 3:52 PM
To: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>
Cc: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Subject: RE: Questions for PJM and Dominion

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To: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>
Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>
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To: Batra, Rakesh <Rakesh.Batra@HQ.DOE.GOV>; Jereza, Catherine <Catherine.Jereza@HQ.DOE.GOV>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>
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From: [Drake, Christopher](#)
To: [Batra, Rakesh](#)
Cc: [Konieczny, Katherine](#)
Subject: RE: Questions for PJM and Dominion
Date: Monday, October 16, 2017 4:07:22 PM
Attachments: [Questions for PJM and Dominion 2017-10-16v3.docx](#)

Rakesh,

Per our conversations, we would appreciate it if you could send the revised version of the questions (attached) to PJM and Dominion first thing tomorrow morning (Tuesday 10/17).

Thanks,
Chris

Chris Drake
Attorney-Adviser
U.S. Department of Energy, Office of General Counsel
Office of Electricity & Fossil Energy (GC-76)
Forrestal North, Room 6B-256
Tel. 202.586.2919
Christopher.Drake@hq.doe.gov

This communication may contain privileged or confidential material. Potential privileges include, but are not limited to, Attorney-Client, Attorney Work-Product, and Deliberative Process.

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From: [Konieczny, Katherine](#)
To: [Batra, Rakesh](#); [Drake, Christopher](#)
Cc: [Rosenbaum, Matthew](#)
Subject: RE: Questions for PJM and Dominion
Date: Tuesday, October 17, 2017 9:19:09 AM

We'll swing by as soon as Chris gets in.

-----Original Message-----

From: Batra, Rakesh
Sent: Tuesday, October 17, 2017 7:24 AM
To: Drake, Christopher <Christopher.Drake@hq.doe.gov>; Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>
Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: RE: Questions for PJM and Dominion

Chris & Kathy:

I discussed this with Matt and would like to talk to either of you. Could you please stop by any time this morning?

Thanks,
Rakesh

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To: Batra, Rakesh <Rakesh.Batra@HQ.DOE.GOV>; Jereza, Catherine <Catherine.Jereza@HQ.DOE.GOV>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doc.gov>
Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>
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Katherine.Konieczny@hq.doe.gov

From: [Drake, Christopher](#)
To: [Jereza, Catherine](#); [Konieczny, Katherine](#); [Mumme, Bettina](#); [Batra, Rakesh](#); [Rosenbaum, Matthew](#)
Subject: Short discussion on factual material for 202(c) rehearing order
Attachments: [DRAFT Summary of Findings Order No. 202-18-1 2017-10-19-BM10-20-17 clean.docx](#)

All,

Attached is the latest working version of the draft Summary of Findings to accompany the Order on Rehearing. GC-51 has a few edits that we will incorporate when the time comes.

From: Konieczny, Katherine
To: Drake, Christopher; Jereza, Catherine; Mumme, Bettina; Batra, Rakesh; Rosenbaum, Matthew; Mills, Brian
Subject: RE: Short discussion on factual material for 202(c) rehearing order
Date: Friday, October 20, 2017 1:55:10 PM
Attachments: [DRAFT Order 202-18-1 2017-10-19 500p.docx](#)
[DRAFT Summary of Findings Order No. 202-18-1 2017-10-20 130pm.docx](#)

Please use the attached documents instead. I apologize that you received a version with unnecessary comment bubbles and tracked changes.

-----Original Appointment-----

From: Drake, Christopher
Sent: Thursday, October 19, 2017 5:26 PM
To: Drake, Christopher; Jereza, Catherine; Konieczny, Katherine; Mumme, Bettina; Batra, Rakesh; Rosenbaum, Matthew
Subject: Short discussion on factual material for 202(c) rehearing order
When: Friday, October 20, 2017 2:00 PM-2:30 PM (UTC-05:00) Eastern Time (US & Canada).
Where: TPTA

<< File: DRAFT Summary of Findings Order No. 202-18-1 2017-10-19-BM10-20-17 clean.docx
 >>

All,

Attached is the latest working version of the draft Summary of Findings to accompany the Order on Rehearing. GC-S1 has a few edits that we will incorporate when the time comes.

From: Mikolop, Todd S.
To: "The.Secretary@hq.doe.gov; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine
Cc: Finto, Kevin; Michael Regulinski; Pincus, Steven; "sanjay.narayan@sierroclub.org"
Subject: DOE Order No. 202-17-4: Virginia Electric and Power Company and PJM Interconnection LLC Motion for Leave to Answer and Answer to Sierra Club's Petition for Rehearing
Date: Friday, October 20, 2017 2:14:29 PM
Attachments: [image001.jpg](#)
[Virginia Elec. Power FPA 202\(c\) Motion for Leave to Answer Sierra Club 2nd Rehearing Request 67018691_4.PDF](#)

Dear Secretary Perry,

On behalf of Kevin Finto, counsel for the Virginia Electric and Power Company (Dominion Energy Virginia), and PJM Interconnection LLC, please find the attached Motion for Leave to Answer and Answer to the Sierra Club's Petition for Rehearing of the DOE's Order No. 202-17-4.

Please contact Mr. Finto or me if you have any questions or require further information regarding this proceeding.

Respectfully submitted,

Todd S. Mikolop



Todd Mikolop

Senior Attorney

tmikolop@hunton.com

p 202.778.2249

m(b) (6)

[bio](#) | [vCard](#) | [blog](#)

Hunton & Williams LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037

hunton.com

**UNITED STATES OF AMERICA
BEFORE THE
DEPARTMENT OF ENERGY**

Virginia Electric and Power Company) Order No. 202-17-4
(Dominion Energy Virginia))

**MOTION FOR LEAVE TO ANSWER AND ANSWER OF
VIRGINIA ELECTRIC AND POWER COMPANY
AND PJM INTERCONNECTION LLC**

Pursuant to Rules 212 and 713 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“Commission” and “Commission Rules”), 18 C.F.R. §§ 385.212, 385.713(c)(3)¹, the Virginia Electric and Power Company (“Dominion Energy Virginia”) and PJM Interconnection LLC (“PJM”) respectfully submits to the Secretary for the Department of Energy (“Secretary” and “Department”) this Motion for Leave to Answer (“Motion”) and Answer (“Answer”) to the Sierra Club’s Petition for Rehearing (“Petition”) of the Secretary’s Order No. 202-17-4 (the “Renewal Order”) submitted on October 5, 2017.

I. Point of Order

As an initial point of order, while the Renewal Order does not explicitly identify the parties to this proceeding, Dominion Energy Virginia seeks to clarify that it is a party of right. Commission Rule 102, 18 C.F.R. §385.102(c)(1) states that a “party” means “any respondent to a proceeding” and subsection (f)(1) states that a respondent means any person “to whom an order

¹ The Department has previously indicated that its regulations pertaining to Federal Power Act § 202(c) emergency authority at 10 C.F.R. § 205.370 *et seq.* do not contain a rehearing section, but that parties should look to guidance on rehearing procedures from the Commission Rules. E-mail from Lot Cooke, Dep’t of Energy Office of Gen. Counsel, to Linda Alle-Murphy, Assoc., Schnader Harrison Segal & Lewis L.L.P. (December 28, 2005 9:05 AM) *available at:* <https://energy.gov/oe/downloads/question-and-answer-procedural-questions-application-rehearing-order-no-202-05-02> (“The DOE regulations on emergency orders, 10 CFR section 205.370, *et seq.*, do not have specific rehearing section, but a party seeking rehearing can look for procedural guidance to FERC’s Rules of Practice and Procedure, 18 CFR Part 385.”). Therefore, to the extent possible, this Motion and Answer is stylized under the Commission Rules. However, in doing so, Dominion Energy Virginia does not necessarily concede that the Commission Rules govern this proceeding.

. . . is issued by the Commission.” The Renewal Order issued by the Secretary is explicitly directed at Dominion Energy Virginia: Dominion Energy Virginia “shall” operate Units 1 and/or 2 of the Yorktown Power Station (“Yorktown”) as directed by PJM; Dominion Energy Virginia “shall continue to comply with the dispatch methodology submitted by PJM; Dominion Energy Virginia “shall” report all dates on which Yorktown Units 1 and/or 2 are operated as well as the estimated emissions and water usage data associated with their operation.² Because Dominion Energy Virginia is a person to whom the Renewal Order is issued, it is a respondent and, therefore, a party of right to this proceeding.³

II. Motion for Leave to Answer

Dominion Energy Virginia and PJM respectfully move for leave to answer the Petition. While Commission Rules discourage answers to rehearing requests, a party may answer a rehearing request if permitted by the decisional authority (here the Secretary or his designee).⁴ For its part, the Commission has permitted a party to answer a request for rehearing when those answers help to clarify complex issues, provide additional information, or are otherwise helpful in the Commission’s decision-making process.⁵ Likewise, the Department has permitted “submission” of any additional comments, information, or analysis on the operation of and/or effects of an order under FPA § 202(c) as such operation and/or effects may be relevant to a

² Renewal Order at 2.

³ Dominion Energy Virginia’s position as a party of right to this proceeding is explicitly evident from the face of the Renewal Order. However, out of an abundance of caution, and to preserve our rights, should the Secretary deem Dominion Energy Virginia not to be a party to this proceeding, then, pursuant Commission Rule 214, 18 C.F.R. § 385.214, Dominion Energy Virginia respectfully moves to intervene in this proceeding. Dominion Energy Virginia’s interest in this proceeding is clear by the number of actions ordered of it under the Renewal Order.

⁴ 18 C.F.R. § 385.213.

⁵ See *Black Oak Energy, L.L.C. v. PJM Interconnection, L.L.C.*, 125 FERC ¶ 61,042 at P 14 (2008) (accepting answer to rehearing request because the Commission determined that it has “assisted us in our decision-making process.”); *FPL Marcus Hook, L.P. v. PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,289 at P 12 (2008) (accepting “PJM’s and FPL’s answers [to rehearing requests], because they have provided information that assisted us in our decision-making process.”).

decision on the request for rehearing.⁶ As demonstrated below, all of these criteria are met by the Answer. Therefore, Dominion Energy Virginia and PJM respectfully request that the Secretary grant this Motion because the Answer will help clarify the record and contribute to an understanding of the operation and/or effects of the Renewal Order.

III. Answer

Sierra Club raises two issues in its Petition: (1) whether the Department satisfied the National Environmental Policy Act in issuing the Renewal Order by invoking a categorical exclusion; and (2) whether the Department, in issuing the Renewal Order demonstrated that it mandates environmental compliance to the maximum extent practicable or limits the hours of operation to those necessary to meet the emergency or serve the public interest. For the reasons set forth below, the answer to both questions is yes. The Sierra Club's arguments are without merit.

A. The Department Properly Categorically Excluded the Renewal Order from Review under the National Environmental Policy Act.

Sierra Club asserts that the Department improperly applied a “categorical exclusion” in determining that the Renewal Order was not subject to further review pursuant to the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* (“NEPA”). As it did in its first Petition submitted on July 13, 2017, Sierra Club first suggests that the Department did not comply with the statute and asks the Secretary to do more review than NEPA requires.

The Department fulfilled its NEPA obligations by analyzing the effects of the Renewal Order and determining that activities were categorically excluded from NEPA’s requirement to prepare either an environmental assessment or an environmental impact statement. Further,

⁶ *Response to Requests for Rehearing of DOE Dec. 20, 2005 DOE Order No. 202-05-3, Order No. 202-06-1, Docket No. EO-05-01, Feb. 17, 2006.*

Sierra Club fails to recognize authority granted by Congress in the FPA regarding applicability and enforceability of environmental law while the Renewal Order is in effect. The Department appropriately determined that issuing the Renewal Order is an action that is categorically excluded from further NEPA analysis.

1. NEPA Allows for Categorical Exclusions

NEPA is a procedural statute that requires a federal agency to assess the environmental effects of a proposed action prior to making a decision on the action. An agency assesses a major federal action significantly affecting the human environment in a detailed statement known as an “environmental impact statement” (“EIS”).⁷ If the agency determines from the outset that the action does not require preparation of an EIS, or determines that analysis is required to determine whether to prepare an EIS, the agency is authorized by regulation to prepare an “environmental assessment” (“EA”).⁸ An agency may also determine that certain categories of actions do not individually or cumulatively have a significant effect on the human environment and, therefore, neither an EA nor an EIS is required. These categories of actions are known as “categorical exclusions.”⁹

Categorical exclusions are individually determined by federal agencies using agency-specific procedures.¹⁰ The Department establishes categorical exclusions pursuant to a rulemaking for defined classes of actions that the Department determines are supported by a record showing that they normally will not have significant environmental impacts, individually or cumulatively.¹¹ This record is based on the Department’s experience, the experience of other

⁷ 42 U.S.C. § 4332(c).

⁸ 40 C.F.R. § 1501.4(a)-(c).

⁹ *Id.* at § 1508.4.

¹⁰ *Id.* at § 1501.4(a)(2).

¹¹ 76 Fed Reg. 63,765 (Oct. 13, 2011).

agencies, completed environmental reviews, professional and expert opinion, and scientific analyses.¹² The Department also considers public comment received during the rulemaking.¹³

Categorical exclusions are not exemptions or waivers of NEPA review, “they are simply one type of NEPA review.”¹⁴ Once established, categorical exclusions provide an efficient tool to complete the NEPA environmental review process for proposals that normally do not require more resource-intensive EAs or EISs.¹⁵ The use of categorical exclusions can reduce paperwork and delay, so that EAs or EISs are targeted toward proposed actions that truly have the potential to cause significant environmental effects.¹⁶

2. The Renewal Order fits within the Power Management Categorical Exclusion

The Department’s categorical exclusions include activities related to power marketing services applied in the Renewal Order.¹⁷ These activities include, but are not limited to, storage, load shaping and balancing, seasonal exchanges, and other similar activities, provided that the operations of generating projects would remain within normal operating limits.¹⁸

As part of its environmental review responsibilities under NEPA, a Department NEPA Compliance Officer was required to examine the proposed Renewal Order to determine whether it qualified for a categorical exclusion. The Department’s process is consistent with that described in the Council on Environmental Quality’s (“CEQ”) Categorical Exclusion Guidance: “When determining whether to use a categorical exclusion for a proposed activity, a Federal agency must carefully review the description of the proposed action to ensure that it fits within

¹² *Id.*

¹³ *Id.*

¹⁴ 75 Fed. Reg. 75,631.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ 10 C.F.R. Pt. 1021, Subpt. D, App. B, B4.4.

¹⁸ *Id.*

the category of actions described in the categorical exclusion. Next, the agency must consider the specific circumstances associated with the proposed activity, to rule out any extraordinary circumstances that might give rise to significant environmental effects requiring further analysis and documentation” in an EA or EIS.¹⁹ The Department’s record of this process is known as a “Record of Categorical Exclusion Determination.”

As described in the Record of Categorical Exclusion Determination accompanying the Renewal Order and included in the docket for the Renewal Order²⁰, the Department applied a single categorical exclusion that applies to power marketing services and activities. In the first Application for Order submitted on June 13, 2017 and incorporated by reference in the Renewal Application, PJM requested authorization to order Dominion Energy Virginia to operate the Yorktown Units 1 and 2 when total demand for electricity “exceeds certain levels to avoid impacting electric reliability and potential violations of Reliability Standards developed by the North American Electric Reliability Corporation (“NERC”) in the North Hampton Roads area.”²¹ This type of activity fits squarely within the power marketing services and activities exclusion, which includes load balancing “that helps ensure system reliability by managing energy resources to be equal with load.”²² The Record of Categorical Exclusion also stated that “DOE has determined that the proposed action identified above will not have a significant effect on the human environment.”²³

¹⁹ 75 Fed. Reg. at 75,631.

²⁰ Findings of Fact at 9.; Records Of Categorical Exclusion Determination Order No. 202-17-4 (Sept. 11, 2017)

²¹ Application at 2.

²² 76 Fed. Reg. 63,777 (Oct. 13, 2011).

²³ Records of Categorical Exclusion at 3.

3. Sierra Club's NEPA arguments are meritless.

Sierra Club argues that “the operations required by the Department’s Order do not comply with the Clean Air Act standards and therefore are not within normal limits.”²⁴ The Department properly applied the power marketing and services categorical exclusion because the operations of Yorktown Units 1 and/or 2 will remain within normal operating limits.²⁵ The term “normal operating limits” means the capacity of generating units. As stated in the Records of Categorical Exclusion, “[t]he expected combined operation of Yorktown Units 1 and 2 reacting to electricity reliability emergencies under DOE Order No. 202-17-4 will be well below normal operating capacities and limits of Yorktown Units 1 and 2.”²⁶

As described in the Application and in the Renewal Order, Dominion Energy Virginia had been operating the subject units under authorization from the Environmental Protection Agency (“EPA”) under an Administrative Compliance Order on Consent (“ACO”) that includes further operational limitations restricting the capacity of the generating units. In the Summary of Findings accompanying its Renewal Order, the Department noted that it had consulted with the EPA and reviewed estimated emissions and water usage data, and that the Renewal Order “continues the operational limitations” in the EPA’s ACO.²⁷ These limits, approved by a federal agency with jurisdiction, can only be considered “normal” or, truly, more restrictive than “normal” operating limits associated with generating capacity. Indeed, the on-going normalcy of these limits is confirmed every two weeks when Dominion Energy Virginia’s reports to the

²⁴ Sierra Club Petition at 1.

²⁵ The Department should not be misled by the Sierra Club’s suggestion in subheading IV.A. of the Petition that the Department “should assess the impacts of its action under the National Environmental Policy Act.” The analysis that led to application of a categorical exclusion is, in itself, an assessment of the impacts under NEPA. That Sierra Club wishes the Department had done more than required by law is of no consequence to whether the Department fully complied with NEPA.

²⁶ Records of Categorical Exclusion at 3.

²⁷ Summary of Findings at 9.

Department all dates on which Yorktown Units 1 and/or 2 have operated and the associated air emissions and water usage for those dates.

Sierra Club's argument that the Renewal Order compels violations of EPA's Mercury and Air Toxics Standards under the Clean Air Act, which consequently cannot be considered "normal operations,"²⁸ is a red herring. Congress carefully crafted FPA § 202(c) to take into account potential violations of federal environmental laws that may result from the issuance of an emergency order. That compliance with such an order "results in noncompliance with, or causes such party to not comply with, any Federal, State, or local environmental law or regulation, such omission or action shall not be considered a violation of such environmental law or regulation, or subject such party to any requirement, civil or criminal liability, or a citizen suit under such environmental law or regulation."²⁹ Thus, any emissions resulting from compliance with the Renewal Order that may not comply with regulations promulgated under the Clean Air Act are not violations, much less emissions that are not "normal." Because FPA § 202(c) provides this exemption, application of the power marketing services and power management activities categorical exclusion to issue the Renewal Order would not result in violations of the Clean Air Act and was consequently appropriate.

B. Sierra Club Misconstrues FPA Requirements where an Order Conflicts with Environmental Regulations.

According to FPA § 202(c)(2), where, as in this proceeding, an order conflicts with a Federal environmental law, the Department "shall ensure that such order requires generation, delivery, interchange, or transmission of electric energy only during hours necessary to meet the emergency and serve the public interest, and, to the maximum extent practicable, is consistent

²⁸ *Id.* at 14.

²⁹ FPA § 202 (c)(3).

with any applicable Federal, State, or local environmental law or regulation and minimizes any adverse environmental impacts.” The Renewal Order itself describes in detail the manner in which the Department has fulfilled these requirements. Sierra Club, however, challenges the Department’s consultation with the EPA regarding short-term emissions limitations and misconstrues the actual extent of Yorktown Units 1 and/or 2’s operations in an effort to expand measures the Department may require to limit emissions.

1. The Department Properly Consulted with the EPA.

Sierra Club alleges that the Department’s consultation with the EPA was deficient because Sierra Club thinks the record does not contain sufficient information.³⁰ FPA § 202 (c)(4)(B) requires consultation with the primary Federal agency with expertise in the environmental interest (here, the EPA) but does not proscribe how the agencies should consult or what records should be included in the public docket beyond any conditions the EPA determines are necessary to minimize adverse impacts to the extent practicable. As noted in the Summary of Findings, after consulting with EPA, and consistent with that consultation, the Department found that the only appropriate short-term emissions limitation on Yorktown Units 1 and 2 would be to curtail operating hours to the maximum extent practicable for reliability purposes. By consulting with the EPA, the Department met its statutory obligation. Even if, in its discretion, the Department considered doing more, the fact is that the limited use – on an emergency basis – of Yorktown Units 1 and/or 2 would be reason enough to not consult any more than the Department did. Sierra Club’s desire that the Department had done more is simply not supported by law or the instant facts.

³⁰ Petition at 9.

2. The Limitations on Operations Are Appropriate.

Sierra Club misconstrues the extent to which Yorktown Units 1 and/or 2 will operate pursuant to the Renewal Order. While conceding that curtailing operating hours is the only practicable means of limiting emissions, Sierra Club implies that the Units will be operating full-time for 18-20 months. This is simply not the case. The Renewal Order, in fact, only authorizes operation of Yorktown Units 1 and/or 2 “in the event generation … is needed to maintain grid reliability.” History and future projections show that the need is far less than full time and, in total, may only amount to 81 days over the entire 18-20 month period.³¹ Therefore, given the relatively low use of the Units, there is simply no need for the Department to require Dominion Virginia Energy to limit operations any more than the Renewal Order already does.

Finally, Sierra Club suggests that demand side management or distributive generation would reduce the number of hours of operation of Yorktown 1 and 2. The Renewal Order specifically requires PJM and Dominion to exhaust all reasonably available resources including demand side management and behind the meter generation sources prior to operating Yorktown Unit 1 or Yorktown Unit 2.³² Sierra Club provides comments by Ariel Horowitz suggesting that alternatives for distributive generation or demand side management might be available to solve the problem. Horowitz, however, admits that he does not know the load levels or deficiencies that need to be addressed.³³ Moreover, far more robust solutions were carefully considered in the Corps permit process and failed to prove practicable. Such a demonstration for demand side management or distributive generation is made more difficult by the fact that Skiffes Creek Project is the chosen and authorized solution and any other alternative would have only a temporary benefit.

³¹ See Renewal Application dated August 24, 2017, at page 3.

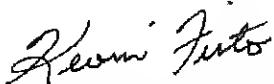
³² Renewal Order at 2; Findings of Fact at 9, 10.

³³ Horowitz comments at 19.

IV. Conclusion

Dominion Energy Virginia respectfully requests that the Secretary grant its Motion and take into consideration this Answer.

Respectfully submitted,



Kevin J. Finto
Hunton & Williams, LLP
951 East Byrd Street
Richmond, VA 23219
(804) 788-8568 (Phone)
Counsel for
Virginia Electric and Power Company

Michael C. Regulinski
Managing General Counsel
Dominion Energy Services, Inc.
120 Tredegar Street
Richmond, VA 23219
(804) 819-2794 (Phone)



Steven R. Pincus
Associate General Counsel
PJM Interconnection, LLC
2750 Monroe Boulevard
Audubon, PA 19403
(610) 666-4370 (phone)

Dated: October 20, 2017

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon:

Pat Hoffman, U.S. Department of Energy
Katherine Konieczny, Department of Energy
Catherine Jereza, U.S. Department of Energy
Rakesh Batra, U.S. Department of Energy
Sanjay Narayan, Sierra Club

Dated at Richmond, VA this 20th day of October, 2017.

Kevin J. Finto
Hunton & Williams, LLP
951 East Byrd Street
Richmond, VA 23219
(804) 788-8568 (Phone)
Counsel for
Virginia Electric and Power Company

Document withheld in full
pursuant to Exemption (b)(5)

From: Mikolop, Todd S.
To: Secretary Perry; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine
Cc: Finto, Kevin; Michael Regulinski; Pincus, Steven; "sanjay.narayan@sierraclub.org"
Subject: DOE Order No. 202-17-4: Virginia Electric and Power Company and PJM Interconnection LLC Motion for Leave to Answer and Answer to Sierra Club's Petition for Rehearing
Date: Friday, October 20, 2017 2:27:59 PM
Attachments: [image001.jpg](#)
[Virginia Elec. Power FPA 202\(c\) Motion for Leave to Answer Sierra Club 2nd Rehearing Request_67018691_5.PDF](#)

(Re-sending due to a rejected e-mail address)

Dear Secretary Perry,

On behalf of Kevin Finto, counsel for the Virginia Electric and Power Company (Dominion Energy Virginia), and PJM Interconnection LLC, please find the attached Motion for Leave to Answer and Answer to the Sierra Club's Petition for Rehearing of the DOE's Order No. 202-17-4.

Please contact Mr. Finto or me if you have any questions or require further information regarding this proceeding.

Respectfully submitted,

Todd S. Mikolop



Todd Mikolop
Senior Attorney
tmikolop@hunton.com
p 202.778.2249
m(b) (6)
[bio](#) | [vCard](#) | [blog](#)

Hunton & Williams LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037

hunton.com

From: Drake, Christopher
To: Batra, Rakesh
Subject: RE: Password for non-public PJM 202(c) applications
Date: Monday, October 23, 2017 1:56:26 PM

Sure - I'll be right up

-----Original Message-----

From: Batra, Rakesh
Sent: Monday, October 23, 2017 1:55 PM
To: Drake, Christopher <Christopher.Drake@hq.doe.gov>
Subject: RE: Password for non-public PJM 202(c) applications

Chris:
Could you please stop by (b) (5) for 5-10 minutes?

Thanks,
Rakesh

-----Original Message-----

From: Drake, Christopher
Sent: Monday, October 23, 2017 12:10 PM
To: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>
Cc: Batra, Rakesh <Rakesh.Batra@Hq.Doc.Gov>
Subject: Password for non-public PJM 202(c) applications

Kathy,

(b) (5)

Chris Drake
Attorney-Adviser
U.S. Department of Energy, Office of General Counsel
Office of Electricity & Fossil Energy (GC-76)
Forrestal North, Room 6B-256
Tel. 202.586.2919
Christopher.Drake@hq.doe.gov

From: Pincus, Steven
To: Batra, Rakesh
Cc: Michael Regulinski; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; O'Hara, Chris; Konieczny, Katherine; Mohammed Alfayoumi
Subject: RE: Information request PJM and Dominion Responses
Date: Monday, October 23, 2017 4:57:10 PM

Dear Mr. Batra: PJM and Dominion submits response to the questions below. Please do not hesitate to contact me if you have any questions.

Respectfully submitted,

Steven R. Pincus

Associate General Counsel, Office of General Counsel
(610) 666-4370 | C: (b) (6) | Steven.Pincus@pjm.com
PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403

From: Batra, Rakesh [mailto:Rakesh.Batra@Hq.Doe.Gov]
Sent: Tuesday, October 17, 2017 9:58 AM
To: Pincus, Steven; Michael Regulinski; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; O'Hara, Chris; Burlew, James M.
Subject: Information request

External Email! Think before clicking links or attachments.

PJM and Dominion:

DOE seeks more information to better understand alternatives to Yorktown Unit 1 & 2 operation. Please provide an initial response to the following questions in writing no later than Wednesday, October 18. Additional information, if any, should be submitted by Monday, October 23.

- According to Appendix II of PJM's June 2017 Application, "PJM has approximately 14 MW of PJM Demand Response available on the peninsula and Dominion Energy Virginia has about 20 MW of Demand Side Management capability on the peninsula in the form of remote air conditioning control as well as the ability to curtail a large industrial customer an average of 75 MWs for transmission emergencies (but the air conditioning control is limited to a total of 120 hours and for 30 days during the summer months). Are those numbers still accurate? If not, what are the correct numbers?

PJM Response: The 14 MWs of PJM Demand Response available on the Virginia Peninsula was based on PJM's analysis for the 2016/2017 Planning Year. This value changes once a year and the value for the 2017/2018 Planning Year is 26 MWs. This change is not material as it does not alter the analysis submitted in the Federal Power Act Section 202(c) application submitted on June 13, 2017 (the "Application") and the renewal application submitted on August 24, 2017 ("Renewal Application"). Of the 26 MWs of Demand Response for the 2017/2018 Planning Year, 14.5 MWs are only available from 6/1 to 9/30, and 11 MW are available from 6/1 to 10/31, and during the month of May. Only 0.7 MWs is available throughout the entire Planning Year. PJM analyses continue to indicate the reliability issues on the Virginia Peninsula cannot be mitigated by the available Demand Response alone and the need to rely on Yorktown Units 1 and 2 remains as stated in the Application and Renewal Application. Most of the reliability problems are voltage related and Demand Response resources are not able to provide the dynamic reactive support that Yorktown 1 and 2 units are capable of providing.

Dominion Response: Dominion Energy Virginia still has available about 20 MW of Demand Side Management capability on the peninsula in the form of remote air conditioning control (limited to a total of 120 hours and for 30 days during the summer months). As stated in Appendix III of the June 13 Application, Dominion Energy Virginia will reserve this capability for the highest need days to reduce load in the North Hampton Roads area on the Virginia Peninsula. With regard to Dominion Energy Virginia's ability to curtail a large industrial customer an average of 75 MWs for transmission emergencies, this curtailment is only available where the customer load is about 99 MW, so that the reduced customer total load is not more than 24 MWs. However, this customer's load during the 2017 summer months has averaged about 40 MWs total, so the 75 MW reduction is not available.

- According to PJM's RTEP Input Assumptions and Scope Whitepaper, Dominion could have a maximum of 130 MW of distributed solar generation available during the summer. Is that number still accurate? If not, what is the correct number?

PJM Response: The 130 MWs of distributed solar generation identified in PJM's RTEP Input Assumptions and Scope Whitepaper while still accurate does not represent "a maximum of 130 MW of distributed solar generation available during the summer." More accurately it represents PJM's forecast of the amount of distributed solar generation that would occur in the entire Dominion zone at typical peaking conditions in 2017. Moreover, distributed solar would already be accounted for in load values for the load forecast studies performed by PJM and Dominion Energy Virginia.

- Neither PJM nor Dominion stated that alternative resources besides demand response and distributed generation, including battery storage, would be available to offset power loss during a scheduled transmission outage. Is that still accurate? If not, what alternative resources are available, and how much power could they provide?

PJM Response: In Appendix II of the Application (and the Renewal Application which incorporates by reference the information from Appendix II), PJM stated that Dominion also "owns and operates on Virginia Peninsula and the oil-fired at the Yorktown Power Station ("Yorktown Unit 3"). While Yorktown Unit 3 with a capacity of 789 MW could, in theory, be available at higher load conditions, Yorktown Unit 3 has limitations which prevent PJM from relying on that unit consistently and for extended periods of time. Yorktown Unit 3 is operating pursuant to a capacity factor limitation to comply with MATS under the rule's limited use oil-fired unit provisions defined in 40 CFR 63.10042. These provisions limit Unit 3's annual capacity factor when burning oil to less than 8 percent of its maximum capacity or nameplate heat input, whichever is less, averaged over a 24 month block contiguous period, the first of which commenced on May 1, 2015, (the first of the month following the compliance date specified in the MATS rule at 40 CFR 63.9984 (April 16, 2015). Exceeding the 8 percent capacity factor limitation would subject the unit to stringent emission limits for particulate matter, mercury, hydrogen chloride and hydrogen fluoride that would require extensive and costly retrofit pollution controls." This information on alternative resources including the available Demand Response as updated above, is still accurate.

- According to the Summary of Findings issued alongside DOE Order No. 202-17-4, the Yorktown coal units offset 950 MW of load that could be shed in a transmission outage. Is

that number still accurate? If not, what is the correct number?

PJM Response: The information regarding the Remedial Action Scheme or RAS as stated in the Application and Renewal Application is still accurate. Absent the availability of Yorktown Units 1 and 2, upon loss of certain facilities, the RAS will trip the remaining feeds to the Virginia Peninsula which sheds electric service to approximately 950 MWs of load to prevent voltage collapse during certain peak periods.

Thanks,
Rakesh Batra
202-586-1283

Document withheld in full
pursuant to Exemption (b)(5)

From: Konieczny, Katherine
To: Batra, Rakesh; Jereza, Catherine; Drake, Christopher; Rosenbaum, Matthew
Subject: RE: PJM / Dominion order
Date: Wednesday, October 25, 2017 10:34:49 AM

Katie and Rakesh,

(b) (5)

-Kathy

-----Original Message-----

From: Batra, Rakesh
Sent: Wednesday, October 25, 2017 10:00 AM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>; Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>
Subject: FW: PJM / Dominion order

Cathy:

(b) (5)

Chris, please let us know if you or Kathy feel otherwise.

Thanks,
Rakesh

-----Original Message-----

From: Jereza, Catherine
Sent: Wednesday, October 25, 2017 9:35 AM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Subject: PJM / Dominion order

Hi Rakesh - (b) (5)

Thanks
Katie

From: Pincus, Steven
To: Batra, Rakesh; Michael Regulinski
Cc: Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III
Subject: RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching
Date: Wednesday, October 25, 2017 4:16:08 PM
Attachments: RE Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching.msg

Rakesh: Attached is Mike Regulinski's reply email to your email message dated September 5, 2017. Please let us know if this is not what you need or if you have any other questions.

Steven R. Pincus
Associate General Counsel, Office of General Counsel
(610) 666-4370 | C: (b) (6) | Steven.Pincus@pjm.com
PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403
From: Batra, Rakesh [mailto:Rakesh.Batra@Hq.Doe.Gov]
Sent: Wednesday, October 25, 2017 3:53 PM
To: Michael Regulinski
Cc: Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III
Subject: RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

External Email! Think before clicking links or attachments.

For some reason the below email from September 5, 2017, was not responded. Could you please provide/clarify the definition of operational limit?

Thanks,
Rakesh

From: Batra, Rakesh
Sent: Tuesday, September 05, 2017 11:40 AM
To: 'Michael Regulinski' <michael.regulinski@dominionenergy.com>
Cc: Pincus, Steven <Steven.Pincus@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Tam, Simon K. <Simon.Tam@pjm.com>; 'craig.glazer@pjm.com' <craig.glazer@pjm.com>; McGlynn, Paul <Paul.McGlynn@pjm.com>; Bresler, Frederick S. (Stu) III <Stu.Bresler@pjm.com>
Subject: RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

Could you please clarify the definition of operational limit?

Thanks,
Rakesh

From: Michael Regulinski [mailto:michael.regulinski@dominionenergy.com]
Sent: Tuesday, September 05, 2017 11:04 AM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Cc: Pincus, Steven <Steven.Pincus@pjm.com>; Bryson, Mike E. <Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Tam, Simon K. <Simon.Tam@pjm.com>; 'craig.glazer@pjm.com' <craig.glazer@pjm.com>; McGlynn, Paul <Paul.McGlynn@pjm.com>; Bresler, Frederick S. (Stu) III <Stu.Bresler@pjm.com>
Subject: FW: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

Rakesh, here is the information you requested regarding Yorktown Units 1 and 2. Please let me know if you have further questions. Mike

	Yorktown 1	Yorktown 2
Name plate (kVA)	200,535	218,000
Min Real Output (MW)	85.0	85.0
Max Real Output (MW)	159.0	164.0
Lagging MVAr	65.0	81.0
Leading MVAr	-50.0	-48.0
Ramp up/down (MW/Min)	1.0	1.4
Operational Limits (MW)	135.0	135.0

Michael C. Regulinski
 Managing General Counsel
 Dominion Energy Services, Inc.
 tieline: 738-2794
 P: (804) 819-2794
 C: (b) (6)
michael.regulinski@dominionenergy.com

From: Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]
Sent: Thursday, August 24, 2017 11:28 AM
To: Pincus, Steven; Michael Regulinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.
Cc: Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III
Subject: [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching PJM /Dominion:
 Could you please provide us the name plate rating, Min & Max Real and reactive power outputs, Ramp up and down time and any operational limits for both the coal units at Yorktown location?
 Thanks,
 Rakesh

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you have received this electronic transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.

From: Michael Regulinski
To: Batra, Rakesh
Cc: Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III
Subject: RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching
Date: Tuesday, September 05, 2017 6:03:01 PM

External Email! Think before clicking links or attachments.

Rakesh,
The installed capacity rating for Yorktown Units 1 and 2 was lowered to 135 MW each, effective in June, 2017. We directed PJM to lower the values in the PJM eDART system. We have not performed normal long term maintenance on either unit so we have constrained the units to 135 MWs due to operational concerns. This load level allows us to meet the reliability needs of PJM and safely operate the units. We do not plan to operate the units higher than 135 for any reason.

Michael C. Regulinski
Managing General Counsel
Dominion Energy Services, Inc.
tel: 738-2794
P: (804) 819-2794
C: (b) (6)
michael.regulinski@dominionenergy.com

From: Batra, Rakesh [mailto:Rakesh.Batra@Hq.Doe.Gov]
Sent: Tuesday, September 05, 2017 11:40 AM
To: Michael Regulinski (Services - 6)
Cc: Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; 'craig.glazer@pjm.com'; McGlynn, Paul; Bresler, Frederick S. (Stu) III
Subject: [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching
Could you please clarify the definition of operational limit?

Thanks,
Rakesh

From: Michael Regulinski [mailto:michael.regulinski@dominionenergy.com]
Sent: Tuesday, September 05, 2017 11:04 AM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Cc: Pincus, Steven <Steven.Pincus@pjm.com>; Bryson, Mike E. <Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Tam, Simon K. <Simon.Tam@pjm.com>; 'craig.glazer@pjm.com' <craig.glazer@pjm.com>; McGlynn, Paul <Paul.McGlynn@pjm.com>; Bresler, Frederick S. (Stu) III <Stu.Bresler@pjm.com>
Subject: FW: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching
Rakesh, here is the information you requested regarding Yorktown Units 1 and 2. Please let me know if you have further questions. Mike

	Yorktown 1	Yorktown 2
Name plate (kVA)	200,535	218,000
Min Real Output (MW)	85.0	85.0
Max Real Output (MW)	159.0	164.0
Lagging MVar	65.0	81.0

Leading MVAr	-50.0	-48.0
Ramp up/down (MW/Min)	1.0	1.4
Operational Limits (MW)	135.0	135.0

Michael C. Regulinski
 Managing General Counsel
 Dominion Energy Services, Inc.
 tieline: 738-2794
 P: (804) 819-2794
 C: (b) (6)
michael.regulinski@dominionenergy.com

From: Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]

Sent: Thursday, August 24, 2017 11:28 AM

To: Pincus, Steven; Michael Regulinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.

Cc: Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III

Subject: [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

PJM /Dominion:

Could you please provide us the name plate rating, Min & Max Real and reactive power outputs, Ramp up and down time and any operational limits for both the coal units at Yorktown location?

Thanks,
 Rakesh

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From: Michael Regulinski
To: Batra, Rakesh
Cc: Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; "craig.glazer@pjm.com"; McGlynn, Paul; Bresler, Frederick S. (Stu) III
Subject: RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching
Date: Wednesday, October 25, 2017 4:37:29 PM
Attachments: RE Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching.msg

Rakesh, as we discussed on the phone, we found our response to the September 5 email. I will ask management about the difference between the operational limits shown in our email response and the MW output levels shown in the August 24 Yorktown Run Time report for the July runs.

Thanks,

Michael C. Regulinski
 Managing General Counsel
 Dominion Energy Services, Inc.
 tieline: 738-2794
 P: (804) 819-2794
 C: (b) (6)
michael.regulinski@dominionenergy.com

From: Batra, Rakesh [mailto:Rakesh.Batra@Hq.Doe.Gov]
Sent: Wednesday, October 25, 2017 3:53 PM
To: Michael Regulinski (Services - 6)
Cc: Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; 'craig.glazer@pjm.com'; McGlynn, Paul; Bresler, Frederick S. (Stu) III
Subject: [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

For some reason the below email from September 5, 2017, was not responded. Could you please provide/clarify the definition of operational limit?

Thanks,
 Rakesh

From: Batra, Rakesh
Sent: Tuesday, September 05, 2017 11:40 AM
To: 'Michael Regulinski' <michael.regulinski@dominionenergy.com>
Cc: Pincus, Steven <Steven.Pincus@pjm.com>; Bryson, Mike E. <Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Tam, Simon K. <Simon.Tam@pjm.com>; 'craig.glazer@pjm.com' <craig.glazer@pjm.com>; McGlynn, Paul <Paul.McGlynn@pjm.com>; Bresler, Frederick S. (Stu) III <Stu.Bresler@pjm.com>

Subject: RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching
 Could you please clarify the definition of operational limit?

Thanks,
 Rakesh

From: Michael Regulinski [mailto:michael.regulinski@dominionenergy.com]
Sent: Tuesday, September 05, 2017 11:04 AM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Cc: Pincus, Steven <Steven.Pincus@pjm.com>; Bryson, Mike E. <Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Tam, Simon K. <Simon.Tam@pjm.com>; 'craig.glazer@pjm.com' <craig.glazer@pjm.com>; McGlynn, Paul <Paul.McGlynn@pjm.com>; Bresler, Frederick S. (Stu) III <Stu.Bresler@pjm.com>

Subject: FW: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching
Rakesh, here is the information you requested regarding Yorktown Units 1 and 2. Please let
me know if you have further questions. Mike

	Yorktown 1	Yorktown 2
Name plate (kVA)	200,535	218,000
Min Real Output (MW)	85.0	85.0
Max Real Output (MW)	159.0	164.0
Lagging MVAr	65.0	81.0
Leading MVAr	-50.0	-48.0
Ramp up/down (MW/Min)	1.0	1.4
Operational Limits (MW)	135.0	135.0

Michael C. Regulinski
Managing General Counsel
Dominion Energy Services, Inc.
telline: 738-2794
P: (804) 819-2794
C: (b) (6)
michael.regulinski@dominionenergy.com

From: Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]
Sent: Thursday, August 24, 2017 11:28 AM
To: Pincus, Steven; Michael Regulinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.
Cc: Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III
Subject: [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

PJM /Dominion:
Could you please provide us the name plate rating, Min & Max Real and reactive power outputs, Ramp up and down time and any operational limits for both the coal units at Yorktown location?

Thanks,
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From: Konieczny, Katherine
To: Mills, Brian; Drake, Christopher; Jereza, Catherine; Mumme, Bettina; Batra, Rakesh; Rosenbaum, Matthew
Cc: Le Duc, Edward
Subject: RE: Short discussion on factual material for 202(c) rehearing order
Date: Thursday, October 26, 2017 9:22:18 AM

(b) (5)

Please feel free to reach out for further explanation.

Thanks,
Kathy

-----Original Message-----

From: Mills, Brian
Sent: Wednesday, October 25, 2017 2:36 PM
To: Konieczny, Katherine <Katherine.Konieczny@HQ.DOE.GOV>; Drake, Christopher <Christopher.Drake@hq.doe.gov>; Jereza, Catherine <Catherine.Jereza@HQ.DOE.GOV>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@HQ.DOE.GOV>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Cc: Le Duc, Edward <Edward.LeDuc@hq.doe.gov>
Subject: RE: Short discussion on factual material for 202(c) rehearing order

Re: Order No. 202-18-1

(b) (5)

-----Original Message-----

From: Konieczny, Katherine
Sent: Friday, October 20, 2017 1:55 PM
To: Drake, Christopher <Christopher.Drake@hq.doe.gov>; Jereza, Catherine <Catherine.Jereza@HQ.DOE.GOV>; Mumme, Bettina <Bettina.Mumme@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@HQ.DOE.GOV>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>; Mills, Brian <Brian.Mills@hq.doe.gov>
Subject: RE: Short discussion on factual material for 202(c) rehearing order

Please use the attached documents instead. I apologize that you received a version with unnecessary comment bubbles and tracked changes.

-----Original Appointment-----

From: Drake, Christopher
Sent: Thursday, October 19, 2017 5:26 PM
To: Drake, Christopher; Jereza, Catherine; Konieczny, Katherine; Mumme, Bettina; Batra, Rakesh; Rosenbaum, Matthew
Subject: Short discussion on factual material for 202(c) rehearing order
When: Friday, October 20, 2017 2:00 PM-2:30 PM (UTC-05:00) Eastern Time (US & Canada).
Where: TPTA

<< File: DRAFT Summary of Findings Order No. 202-18-1 2017-10-19-BM10-20-17 clean.docx >>
All,

Attached is the latest working version of the draft Summary of Findings to accompany the Order on Rehearing. GC-

51 has a few edits that we will incorporate when the time comes.

From: Michael Regulinski
To: Batra, Rakesh
Cc: Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; "craig.glazer@pjm.com"; McGlynn, Paul; Bresler, Frederick S. (Stu) III
Subject: RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching
Date: Friday, October 27, 2017 2:48:36 PM

Rakesh, you requested an explanation of the difference between the operational limits for Yorktown Units 1 and 2 which were lowered to 135 MW each, effective in June, 2017, and the MW output levels shown in the Yorktown July 2017 Run Time report for the July 11-25 runs directed by PJM and reported to DOE on August 24, which exceeded 135 MWs on several occasions.

The MW values provided in the Yorktown Run Time report for the July runs reflect the gross values of plant MW output. Emission data is determined on gross MW values. The 135 MW operational limit reflects the net MW output of the plant, which is the gross output of the units reduced by station auxiliary power, which is the power needed to operate the station itself and the generation units.

Please let me know if you have additional questions. Mike

Michael C. Regulinski
 Managing General Counsel
 Dominion Energy Services, Inc.
 teline: 738-2794
 P: (804) 819-2794
 C: (b) (6)

michael.regulinski@dominionenergy.com

From: Michael Regulinski (Services - 6)
Sent: Wednesday, October 25, 2017 4:37 PM
To: 'Batra, Rakesh'
Cc: Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; 'craig.glazer@pjm.com'; McGlynn, Paul; Bresler, Frederick S. (Stu) III
Subject: RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching

Rakesh, as we discussed on the phone, we found our response to the September 5 email. I will ask management about the difference between the operational limits shown in our email response and the MW output levels shown in the August 24 Yorktown Run Time report for the July runs.

Thanks,
 Michael C. Regulinski
 Managing General Counsel
 Dominion Energy Services, Inc.
 teline: 738-2794
 P: (804) 819-2794
 C: (b) (6)

michael.regulinski@dominionenergy.com

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Sent: Wednesday, October 25, 2017 3:53 PM
To: Michael Regulinski (Services - 6)
Cc: Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; 'craig.glazer@pjm.com'; McGlynn, Paul; Bresler, Frederick S. (Stu) III

Subject: [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching
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Cc: Pincus, Steven <Steven.Pincus@pjm.com>; Bryson, Mike E.
<Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Tam,
Simon K. <Simon.Tam@pjm.com>; 'craig.glazer@pjm.com' <craig.glazer@pjm.com>;
McGlynn, Paul <Paul.McGlynn@pjm.com>; Bresler, Frederick S. (Stu) III
<Stu.Bresler@pjm.com>

Subject: RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date
approaching

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Thanks,
Rakesh

From: Michael Regulinski [<mailto:michael.regulinski@dominionenergy.com>]
Sent: Tuesday, September 05, 2017 11:04 AM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Cc: Pincus, Steven <Steven.Pincus@pjm.com>; Bryson, Mike E.
<Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Tam,
Simon K. <Simon.Tam@pjm.com>; 'craig.glazer@pjm.com' <craig.glazer@pjm.com>;
McGlynn, Paul <Paul.McGlynn@pjm.com>; Bresler, Frederick S. (Stu) III
<Stu.Bresler@pjm.com>

Subject: FW: Emergency Order Pursuant to FPA 202(c) - Renewal Due date
approaching

Rakesh, here is the information you requested regarding Yorktown Units 1 and 2.
Please let me know if you have further questions. Mike

	Yorktown 1	Yorktown 2
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Michael C. Regulinski
Managing General Counsel
Dominion Energy Services, Inc.
teline: 738-2794
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C: (b) (6)
michael.regulinski@dominionenergy.com

From: Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]
Sent: Thursday, August 24, 2017 11:28 AM
To: Pincus, Steven; Michael Regulinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.
Cc: Glazer, Craig; McGlynn, Paul; Bresler, Frederick S. (Stu) III
Subject: [External] RE: Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching
PJM /Dominion:
Could you please provide us the name plate rating, Min & Max Real and reactive power outputs, Ramp up and down time and any operational limits for both the coal units at Yorktown location?
Thanks,
Rakesh

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From: Konieczny, Katherine
To: Batra, Rakesh; Rosenbaum, Matthew; Jerezza, Catherine; Mills, Brian
Subject: 202(c) order on rehearing draft summary of findings
Date: Monday, October 30, 2017 5:28:57 PM
Attachments: [DRAFT Summary of Findings Order No. 202-18-1 2017-10-30 445pm.docx](#)
Importance: High

Hello. The most recent draft summary of findings is attached and reflects feedback we received from Matt and Rakesh in response to questions. As always, please review the entire document for accuracy. (b) (5)

Thank you,
Kathy

Katherine (Kathy) Konieczny
Acting Assistant General Counsel for Electricity and Fossil Energy
Forrestal 6D-033
(202) 586-0503
Katherine.Konieczny@hq.doe.gov

From: Konieczny, Katherine
To: Batra, Rakesh; Drake, Christopher
Cc: Bittner, Kathy (CONTR); Jereza, Catherine; Rosenbaum, Matthew
Subject: RE: Rehearing Order
Date: Monday, October 30, 2017 5:30:28 PM

Rakesh, DOJ and OE were provided with the latest draft today, and EPA received the excerpt that concerns that agency, and I expect to receive rolling comments. (b) (5)

From: Batra, Rakesh
Sent: Monday, October 30, 2017 11:43 AM
To: Konieczny, Katherine ; Drake, Christopher ; King-Gilmore, Christy
Cc: Bittner, Kathy (CONTR) ; Jereza, Catherine ; Rosenbaum, Matthew
Subject: Rehearing Order

Could you please update the status of the Siera Club Rehearing order?
When can we expect the final draft?
I need to update Kathy Bittner.
Thanks,
Rakesh

From: Konieczny, Katherine
To: Batra, Rakesh; Rosenbaum, Matthew
Cc: Drake, Christopher
Subject: RE: 202(c)
Date: Tuesday, October 31, 2017 12:40:08 PM

PRIVILEGED - ATTORNEY CLIENT - ATTORNEY WORK-PRODUCT

Great! We'll swing by at 1:30. (b) (5)

-----Original Message-----

From: Batra, Rakesh
Sent: Tuesday, October 31, 2017 12:31 PM
To: Konieczny, Katherine <Katherine.Konieczny@HQ.DOE.GOV>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: RE: 202(c)

Sure, you can stop by any time. (b) (6)

-----Original Message-----

From: Konieczny, Katherine
Sent: Tuesday, October 31, 2017 11:50 AM
To: Batra, Rakesh <Rakesh.Batra@HQ.DOE.GOV>; Rosenbaum, Matthew <Matthew.Rosenbaum@HQ.DOE.GOV>
Subject: 202(c)

Do you have time early this afternoon to discuss another technical question that have come up?

Thanks,
Kathy

Katherine (Kathy) Konieczny
Acting Assistant General Counsel for Electricity and Fossil Energy
Forrestal 6D-033
(202) 586-0503
Katherine.Konieczny@hq.doe.gov

From: Michael Regulinski
To: Batra, Rakesh
Subject: Yorktown Unit 3
Date: Wednesday, November 01, 2017 5:18:23 PM

We are gathering the data you requested and expect to get it to you COB Thursday.

Sent from my iPhone
Please excuse weird auto corrections

From: Michael Regulinski
To: Batra, Rakesh
Subject: Re: Yorktown 3 data
Date: Thursday, November 02, 2017 10:18:06 AM

Should get it to you by noon.

Sent from my iPhone
Please excuse weird auto corrections

On Nov 1, 2017, at 5:02 PM, Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov> wrote:

COB Thursday will not work. Need it before noon.
Thanks

From: Michael Regulinski <happypop2000@gmail.com>
Date: Wednesday, Nov 01, 2017, 4:44 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Cc: Steven R. Pincus <Steven.Pincus@pjm.com>
Subject: Yorktown 3 data

Rakesh, the engineers are digging up the data you requested. Our ETA is Thursday COB. Thanks
Mike

Sent from my iPhone
Please excuse weird auto corrections

From: Drake, Christopher
To: Batra, Rakesh
Subject: E-mails for the Summary of Findings
Date: Thursday, November 02, 2017 10:54:09 AM
Importance: High

Rakesh,

We're collecting the supporting documents for the Summary of Findings to go with the 202(c) order. Could you please save the following emails as pdfs and send them to me?

- Email from S. Pincus to R. Batra (Oct. 23, 2017)
- Email from M. Regulinski to R. Batra (Sept. 5, 2017)
- Email from M. Regulinski to R. Batra (Oct. 27, 2017)

(b) (5)

Also, if you could share the draft action memo with us as soon as you can, that would be great!

Thanks for all your help & talk to you soon

Chris Drake

Attorney-Adviser

U.S. Department of Energy, Office of General Counsel

Office of Electricity & Fossil Energy (GC-76)

Forrestal North, Room 6B-256

Tel. 202.586.2919

Christopher.Drake@hq.doe.gov

From: Michael Regulinski
To: Batra, Rakesh
Cc: Pincus, Steven; Sharon L. Burr; Rick R Linker; Miranda R Yost; Mohammed Alfayoumi; Mike Barmer
Subject: DOE Informal Question
Date: Thursday, November 02, 2017 11:01:41 AM
Attachments: YT3 Days of Operation 2014 2016.xlsx

Rakesh, here is the information you requested Tuesday night over the phone regarding Yorktown Unit 3 operations. The following chart reflects Unit 3 operation presented in the same manner we provided the information for Units 1 and 2.

Yorktown 3	
Name plate (kVA)	980,000
Min Real Output (MW)	300.0
Max Real Output (MW)	789.0
Lagging MVAr	300.0
Leading MVAr	-180.0
Ramp up/down (MW/Min)	5.0
Operational Limits (MW)	789.0

Attached are YT 3 days of operations from 2014 thru 2016. We rounded to full days because that is what our records contain.

The Top 5 reasons for Yorktown 3 reliability concerns are as follow.

1. Structural duct work and dampers repairs
2. LP Turbine inspections/repairs
3. Waterbox repairs
4. Turbine valve work/repairs
5. Various Boiler tube leaks

Please call my cell if you need additional information (b) (6)

Thanks, Mike

Michael C. Regulinski

Managing General Counsel

Dominion Energy Services, Inc.

teline: 738-2794

P: (804) 819-2794

C: (b) (6)

michael.regulinski@dominionenergy.com

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Yorktown-3 : Days of Operation

01/2014 - 12/2016

Yorktown-3 : 01/2014 - 12/2016 : Total Run Times

Start Date	End Date	Duration (Days)
1/6/2014	1/9/2014	3
1/20/2014	1/22/2014	2
1/23/2014	1/24/2014	1
1/27/2014	1/31/2014	4
8/20/2014	8/23/2014	3
8/25/2014	8/27/2014	2
1/1/2015	1/1/2015	0
1/7/2015	1/9/2015	2
2/2/2015	2/5/2015	3
2/14/2015	2/21/2015	7
6/14/2015	6/16/2015	2
7/19/2015	7/21/2015	2
7/26/2015	7/30/2015	4
8/3/2015	8/7/2015	4
12/14/2015	12/15/2015	1
1/12/2016	1/14/2016	2
2/11/2016	2/15/2016	4
6/2/2016	6/4/2016	2
7/23/2016	7/26/2016	3
8/30/2016	9/1/2016	1
11/30/2016	12/2/2016	2
		54

From: Drake, Christopher
To: Batra, Rakesh
Subject: RE: DOE Informal Question
Date: Thursday, November 02, 2017 11:17:03 AM

Great – thanks for this, Rakesh. And can you please send me this e-mail as a pdf, along with the other three e-mails (Sept. 5, Oct. 23, Oct. 27)?

From: Batra, Rakesh

Sent: Thursday, November 02, 2017 11:15 AM

To: Konieczny, Katherine ; Drake, Christopher ; Rosenbaum, Matthew ; Mills, Brian

Subject: FW: DOE Informal Question

Additional information about Yorktown Unit #3. In the past 3 years they ran Unit #3 for only 54 days.

From: Michael Regulinski [mailto:michael.regulinski@dominionenergy.com]

Sent: Thursday, November 02, 2017 11:01 AM

To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>

Cc: Pincus, Steven <Steven.Pincus@pjm.com>; Sharon L. Burr

<sharon.l.burr@dominionenergy.com>; Rick R Linker <rick.r.linker@dominionenergy.com>; Miranda

R Yost <Miranda.R.Yost@dominionenergy.com>; Mohammed Alfayoumi

<mohammed.alfayoumi@dominionenergy.com>; Mike Barmer

<mike.barmer@dominionenergy.com>

Subject: DOE Informal Question

Rakesh, here is the information you requested Tuesday night over the phone regarding Yorktown Unit 3 operations. The following chart reflects Unit 3 operation presented in the same manner we provided the information for Units 1 and 2.

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3. Waterbox repairs
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5. Various Boiler tube leaks

Please call my cell if you need additional information (b) (6)

Thanks, Mike

Michael C. Regulinski

Managing General Counsel

Dominion Energy Services, Inc.

teline: 738-2794

P: (804) 819-2794

C: (b) (6)

michael.regulinski@dominionenergy.com

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From: Drake, Christopher
To: Batra, Rakesh
Subject: RE: E-mails for the Summary of Findings
Date: Thursday, November 02, 2017 11:28:04 AM

Excellent – thank you! Exactly what we're looking for

From: Batra, Rakesh
Sent: Thursday, November 02, 2017 11:26 AM
To: Drake, Christopher <Christopher.Drake@hq.doe.gov>
Subject: RE: E-mails for the Summary of Findings

<< File: RE_ Information request PJM and Dominion Responses Oct 23.pdf >> << File: FW_ Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching Sept 5.pdf >> << File: RE_ Emergency Order Pursuant to FPA 202(c) - Renewal Due date approaching Oct 27.pdf >>

From: Drake, Christopher
Sent: Thursday, November 02, 2017 10:54 AM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Subject: E-mails for the Summary of Findings
Importance: High

Rakesh,

We're collecting the supporting documents for the Summary of Findings to go with the 202(c) order. Could you please save the following emails as pdfs and send them to me?

- Email from S. Pincus to R. Batra (Oct. 23, 2017)
- Email from M. Regulinski to R. Batra (Sept. 5, 2017)
- Email from M. Regulinski to R. Batra (Oct. 27, 2017)

(b) (5)

Also, if you could share the draft action memo with us as soon as you can, that would be great!

Thanks for all your help & talk to you soon

Chris Drake

Attorney-Adviser

U.S. Department of Energy, Office of General Counsel

Office of Electricity & Fossil Energy (GC-76)

Forrestal North, Room 6B-256

Tel. 202.586.2919

Christopher.Drake@hq.doe.gov

From: Konieczny, Katherine
To: Batra, Rakesh; Drake, Christopher; Rosenbaum, Matthew; Mills, Brian
Cc: Jereza, Catherine
Subject: RE: 202 (C) Rehearing Request Order
Date: Thursday, November 02, 2017 2:30:17 PM
Attachments: [Compare order 202-18-1.docx](#)
[Compare Summary of Findings.docx](#)
[DRAFT Order 202-18-1 2017-11-1.docx](#)
[DRAFT Summary of Findings Order No. 202-18-1 2017-11-2 2pm CLFAN.docx](#)
Importance: High

The latest drafts of both Order No. 202-18-1 and the Summary of Findings are attached. (Compared to the versions we emailed you on Monday) Please let us know if you have any concerns/questions/edits. (b) (5)

-----Original Message-----

From: Konieczny, Katherine
Sent: Thursday, November 02, 2017 2:13 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doc.Gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: RE: 202 (C) Rehearing Request Order

(b) (5) and I'll have a new draft to you in the next few minutes for your review. (b) (5)
Should I send the final to Katie and Kathy B when it's ready? Who has the action memo?

-----Original Message-----

From: Batra, Rakesh
Sent: Thursday, November 02, 2017 2:11 PM
To: Konieczny, Katherine <Katherine.Konieczny@Hq.Doc.Gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: 202 (C) Rehearing Request Order

Kathy & Chris,

Matt and I stopped by your offices couple of times today. (b) (6)

(b) (5) If there is anything we can help you with before we leave, please let us know.

Thanks,
Rakesh Batra
202-586-1283

From: [Jereza, Catherine](#)
To: [Bittner, Kathy \(CONTR\)](#)
Cc: [Konieczny, Katherine](#); [Drake, Christopher](#); [Batra, Rakesh](#); [Rosenbaum, Matthew](#)
Subject: FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)
Date: Monday, November 06, 2017 3:36:29 PM
Attachments: [Signed Order 202-18-1.pdf](#)

Hi Kathy – do you have the electronic version that includes John Lucas' edits? Can you send so we can make sure the right version goes out.

Once we have that, I'll be sending the email out below.

Thanks!

Katie

From: Jereza, Catherine

To: Steven.Pincus@pjm.com; craig.glazer@pjm.com; michael.regulinski@dominionenergy.com; sanjay.narayan@sierraclub.org; casey.roberts@sierraclub.org; bridget.lee@sierraclub.org

Cc: Walker, Bruce; Hoffman, Patricia; Batra, Rakesh; Konieczny, Katherine

Subject: DOE Order 202-18-1

Good evening,

Today the Secretary of Energy issued Order No. 202-18-1. The Order and Summary of Findings are attached.

Regards,

Katie

From: Bittner, Kathy (CONTR)

Sent: Monday, November 06, 2017 3:07 PM

To: Jereza, Catherine

Cc: Rosenbaum, Matthew

Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

Just wanted to make sure that you are aware that the order was signed (see attached).

Let me know if you need anything else.

Thanks,

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: kathy.bittner@hq.doe.gov

From: Bittner, Kathy (CONTR)

Sent: Friday, November 03, 2017 3:31 PM

To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>

Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>

Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

FYI..I took the package to Exec Sec. It has cleared Exec Sec review and is with the Deputy Secretary now.

Have a great weekend.

Kathy Bittner
Correspondence Specialist
ICF, Contractor for U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability
Phone: (202) 287-5613
Email: kathy.bittner@hq.doe.gov

From: Jerez, Catherine
Sent: Friday, November 03, 2017 12:35 PM
To: Bittner, Kathy (CONTR) <kathy.bittner@hq.doe.gov>
Subject: FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Kathy – I'm in my office now.
Cheers
Katie



Department of Energy
Washington, DC 20585

Order No. 202-18-1

Order No. 202-17-4, dated September 14, 2017, authorizes the operation of coal-fired Yorktown Power Station Units 1 and 2, only for reliability purposes and under strict conditions, through December 13, 2017. I issued that Order by my authority under section 202(e) of the Federal Power Act (FPA), 16 U.S.C. § 824a(c). On October 6, 2017, Sierra Club moved to intervene and petitioned for rehearing of Order No. 202-17-4, pursuant to FPA section 313(a), 16 U.S.C. § 8251(a). On October 20, the Virginia Electric and Power Company (Dominion) and PJM Interconnection LLC (PJM) filed a motion for leave to answer and answer to Sierra Club's petition, including a point of order wherein Dominion sought clarification that it is a party of right.

Sierra Club's motion to intervene is hereby granted. The Department takes no position, however, on whether Sierra Club is an "aggrieved" party for purposes of FPA section 313. The Dominion and PJM motion for leave to answer is granted, and the answer is accepted. Dominion is recognized as a party to this proceeding.

As explained in the accompanying Summary of Findings, incorporated here by reference, Sierra Club's petition for rehearing is denied.

Issued in Washington, D.C. this 6th day of November, 2017.

Rick Perry
Rick Perry
Secretary of Energy

From: Bittner, Kathy (CONTR)
To: Jereza, Catherine
Cc: Konieczny, Katherine; Drake, Christopher; Batra, Rakesh; Rosenbaum, Matthew
Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)
Date: Monday, November 06, 2017 3:38:50 PM
Attachments: [Summary of Findings Order No. 202-18-1 2017-11-3 930am.docx](#)

Sure, here it is.

From: Jereza, Catherine
Sent: Monday, November 06, 2017 3:36 PM
To: Bittner, Kathy (CONTR)
Cc: Konieczny, Katherine ; Drake, Christopher ; Batra, Rakesh ; Rosenbaum, Matthew
Subject: FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Kathy – do you have the electronic version that includes John Lucas' edits? Can you send so we can make sure the right version goes out.

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From: Jereza, Catherine
To: Steven.Pincus@pjm.com; craig.glazer@pjm.com; michael.regulinski@dominionenergy.com; sanjay.narayan@sierraclub.org; casey.roberts@sierraclub.org; bridget.lee@sierraclub.org

Cc: Walker, Bruce; Hoffman, Patricia; Batra, Rakesh; Konieczny, Katherine

Subject: DOE Order 202-18-1

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Regards,

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From: Bittner, Kathy (CONTR)

Sent: Monday, November 06, 2017 3:07 PM

To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>

Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>

Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

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Let me know if you need anything else.

Thanks,

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: kathy.bittner@hq.doe.gov

From: Bittner, Kathy (CONTR)

Sent: Friday, November 03, 2017 3:31 PM

To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>

Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>

Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

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Have a great weekend.

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: kathy.bittner@hq.doe.gov

From: Jereza, Catherine

Sent: Friday, November 03, 2017 12:35 PM

To: Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>

Subject: FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Kathy – I'm in my office now.

Cheers

Katie

Summary of Findings

Department of Energy Order No. 202-18-1

November 6, 2017

Section 202(c) of the Federal Power Act (FPA) (codified at 16 U.S.C. § 824a(c)), through section 301(b) of the Department of Energy Organization Act (codified at 42 U.S.C. § 7151(b)), authorizes the Secretary of Energy, upon finding “that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy, or of fuel or water for generating facilities, or other causes,” to issue an order “requir[ing] . . . such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [the Secretary’s] judgment will best meet the emergency and serve the public interest.” 16 U.S.C. § 824a(c)(1). If the order “may result in a conflict with [an] environmental law or regulation,” then the Secretary must “ensure that such order requires generation, delivery, interchange, or transmission of electric energy only during hours necessary to meet the emergency and serve the public interest, and, to the maximum extent practicable, is consistent with any applicable . . . environmental law or regulation and minimizes any adverse environmental impacts.” *Id.* § 824a(c)(2). Orders issued under FPA section 202(c) “that may result in a conflict with [an] environmental law or regulation” expire 90 days after they are issued, but the Secretary “may renew or reissue such order[s] . . . for subsequent periods, not to exceed 90 days for each period, as [the Secretary] determines necessary to meet the emergency and serve the public interest.” *Id.* § 824a(c)(4)(A).

Order No. 202-17-4 (the September Order), issued on September 14, 2017, authorizes the operation of coal-fired Yorktown Power Station Units 1 and 2 pursuant to section 202(c), for reliability purposes only and under strict conditions, through December 13, 2017. On October 6, 2017, Sierra Club moved to intervene and petitioned for rehearing of the September Order pursuant to FPA section 313(a), 16 U.S.C. § 825l(a).¹ *Sierra Club’s Motion Petition for Rehearing, and Motion to Intervene* (Oct. 6, 2017) (Petition). On October 20, 2017, the Department of Energy (DOE or Department) received an answer to Sierra Club’s petition from the Virginia Electric and Power Company (Dominion) and PJM Interconnection LLC (PJM). On October 23, 2017, PJM responded to a list of questions from the Department’s Office of Electricity Delivery and Energy Reliability, and further clarifications from PJM and Dominion are noted below.

¹ Issuance of today’s Order falls within the timeframe provided under FPA section 313(a). See 16 U.S.C. § 825l(a) (“Unless the [Secretary] acts upon [an] application for rehearing within thirty days after it is filed, such application may be deemed to have been denied.”); 10 C.F.R. § 205.5(a)(1); *see also Kan. Cities v. FERC*, 723 F.2d 82, 85 n.2 (D.C. Cir. 1983) (affirming the Federal Energy Regulatory Commission (FERC) regulatory interpretation of a section 313(a) deadline extension to fall on a business day).

Summary of Findings for Department of Energy Order No. 202-18-1

For the reasons discussed in this Summary of Findings, and as reflected in Order No. 202-18-1, Sierra Club's petition for rehearing is denied.

Sierra Club raises two categories of objections to the Department's compliance with FPA section 202(c):

- (1) The Department's failure to (a) properly consult with EPA under Section 202(c) and to (b) add further measures to reduce the Yorktown Units' hours of operation and emissions; and
- (2) The Department's failure to properly assess the impacts of its action under the National Environmental Policy Act and its reliance on an inapplicable categorical exclusion.

The Department's objective was, and remains, to minimize the use of either unit, in light of environmental considerations, without compromising or jeopardizing the reliability of the power grid in the North Hampton Roads area. To accomplish this, the Department must balance competing challenges to arrive at a solution that "in [the Secretary's] judgment will best meet the emergency and serve the public interest." 16 U.S.C. § 824a(c)(1).

The Department Complied with Section 202(c) of the Federal Power Act

A key component of the Sierra Club's first objection is its claim that DOE did not fulfill the statute's consultation requirement. The Sierra Club, however, misreads section 202(c), arguing for a scope and procedural complexity of consultation that is not found in the statute. In renewing or reissuing certain orders under section 202(c), the statute requires DOE to "consult with the primary Federal agency with expertise in the environmental interest protected by [a conflicting] law or regulation" and to "include in any such renewed or reissued order such conditions as such Federal agency determines necessary to minimize any adverse environmental impacts to the extent practicable." 16 U.S.C. § 824a(c)(4)(B).

In this case, DOE consulted with the relevant federal agency, the U.S. Environmental Protection Agency (EPA). Following consultation, EPA concurred in writing with the Department's approach in the September Order. EPA did not recommend or propose further conditions on matters within its purview in the September Order or indicate that additional or different consultation with EPA was desired. The FPA does not specify procedures or substantive requirements for consultation under this provision. Rather, it requires only that a consultation take place and, if the consulted agency (here, EPA) proposes additional conditions in a renewal order, that such conditions be included in the order unless DOE "determines that such condition would prevent the order from adequately addressing the emergency" and publicly explains its determination. Here, EPA recommended no additional conditions. Rather, EPA expressly acknowledged the

Summary of Findings for Department of Energy Order No. 202-18-1

September Order's consistency with EPA's April 2016 Administrative Compliance Order (ACO) and expressed no concerns about DOE's approach.

Indeed, the statute expressly recognizes that, as occurred here, the consulted agency might not propose further conditions: “[t]he conditions, *if any*, submitted by such Federal agency shall be made available to the public.” *Id.* (emphasis added). Thus, Sierra Club incorrectly reads the statute as requiring the consulted agency (*i.e.*, EPA) to verify, independently, DOE's compliance with FPA section 202(c)(2). The statute contains no such requirement or mechanism for such independent verification. Rather, FPA section 202(c)(4) provides the consulted agency the opportunity to propose conditions in a DOE order that would either supplement or substitute for conditions to be ordered by DOE and as to which DOE has discretion to accept or reject, subject to the requirement to explain its reasoning. Sierra Club incorrectly seeks to transform this consultation process from one in which an agency with specific environmental expertise advises DOE on conditions to one in which the consulted agency exercises an oversight role and must approve DOE's actions. However, Sierra Club offers no support for that interpretation, and DOE finds nothing in the text of the statute to support such an interpretation. DOE's consultation with EPA prior to issuing the September Order satisfied the statutory requirements.²

Next, Sierra Club suggests that alternative sources of power can and should replace Yorktown Units 1 and 2 generation during transmission outages or high load conditions, either of which could trigger the Remedial Action Scheme (RAS) that automatically sheds roughly 950 MW of load to prevent voltage collapse. *See Summary of Findings for Department of Energy Order No. 202-17-4*, at 4 (Sept. 14, 2017) (Summary of Findings). Notably, the Sierra Club acknowledges that the challenged September Order requires PJM and Dominion to exhaust available resources, including demand response and behind-the-meter generation resources, prior to operating Yorktown Units 1 or 2. Petition at 9-10. This reduces Sierra Club's objection to the fact that the September Order does not require the consideration of additional resources that may become available “over the course of the emergency.” *Id.* at 10. In other words, Sierra Club concedes that the Department correctly evaluated available alternatives but quibbles that the Department should have analyzed speculative new resources as well.

While the Department does not oppose the use of alternative power sources generally, it explained in the September Order that, in its judgment and based on the record before it, the available alternative power cannot fully compensate for the loss of Yorktown Units 1 and 2 generation, and would therefore not suffice to preserve the reliability of the North Hampton Roads grid:

² Informal communications with EPA staff have continued. Despite learning of the Sierra Club's arguments in the October 6 petition, EPA personnel have not expressed an intent to add conditions.

Summary of Findings for Department of Energy Order No. 202-18-1

The only sufficient alternative to the RAS and its resulting outages for up to approximately 150,000 customers is the emergency operation of Yorktown Units 1 and 2. The demand response available to PJM is a small fraction of the load threshold and is “not sufficient to ensure reliable service.” Likewise, Dominion has limited demand-side management and curtailment capabilities, insufficient for reliability purposes even when fully deployed.

Id. at 6 (citations omitted).

Both the Department’s June 2017 and September 2017 orders specifically require the minimum use of Yorktown Units 1 and 2 that preserves system reliability—and, in fact, PJM and Dominion emphasize that “[h]istory and future projections show that the need [for operation of Yorktown Units 1 and 2] is far less than full time and, in total, may only amount to 81 days over the entire 18-20 month [transmission upgrade] period.”

Motion for Leave to Answer and Answer of Virginia Electric & Power Company and PJM Interconnection LLC, at 10 (Oct. 20, 2017) (Answer). Under section 202(c), the Department is authorized “to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [the Secretary’s] judgment will best meet the emergency and serve the public interest.” The requirement is conjunctive, not disjunctive. The Department acknowledges that minimizing the use of Yorktown Units 1 and 2, both of which were planned to be retired by now, is in the public interest, along with exploring alternative power sources. In the Secretary’s judgment, however, reliance on alternative power sources alone, such as those Sierra Club suggests, does not best meet the emergency. The public interest is not served by the RAS being needlessly activated and power being shut off to 150,000 customers—and hundreds of thousands of people—which would be the result of insufficient generation during a transmission outage.

In assessing the need for an emergency order under section 202(c), the Department independently evaluates the situation, but it is not required to determine every reasonable alternative. The statute requires only that the Secretary use his or her best judgment to meet the emergency and serve the public interest. That judgment includes the determination of which factors play a central role in a given emergency and the weight to assign each such factor. In this situation, the expertise of the applicant was an important factor. The Department received an application from PJM, which is not only the regional transmission organization responsible for managing a transmission system across twelve states and the District of Columbia, but also holds the highest-level, federally-regulated reliability responsibilities for the system it manages. Summary of Findings at 2. The Department’s independent analysis of PJM’s request took into account the extensive earlier reviews conducted by PJM in evaluating the proposed solution. *Id.* at 2-3. Although DOE is not obligated to analyze the viability of alternative resources (especially at the unit level, which is an unbounded analysis if DOE were to consider potential new resources), the

Summary of Findings for Department of Energy Order No. 202-18-1

following analysis broadly explains the rationale behind dispatching Yorktown Units 1 and 2 instead of other categories of alternative resources.

The alternatives Sierra Club presents for consideration (namely expanded demand response and distributed generation resources as well as battery storage) do not best meet the emergency because, unlike Yorktown Units 1 and 2, they cannot guarantee enough dispatchable power, both real³ and reactive,⁴ during excessive load periods or transmission outages. Reliance on alternatives to Yorktown Units 1 and 2 would require both real and reactive power supply, and achieving that over the anticipated remaining emergency timeframe⁵ is infeasible due to a combination of technical and market challenges. The precise amount of dispatchable power needed to replace Yorktown Units 1 and 2 varies based on a combination of the system configuration (e.g., whether any other facilities are offline) and load. The Department's analysis reasonably focused on the worst-case scenario, which would draw on the full output of both Units 1 and 2, or 270 MW (net), and also have the option of providing reactive power support. The combined capacity of all currently-available alternatives does not reach 270 MW (net), and the Department explains below why those alternative resources, even if combined, are unlikely to become sufficient substitutes over the remaining emergency timeframe.

First, relying on available demand response is inadequate because it cannot provide sufficient reactive power support.⁶ Demand response is only a load reduction measure. Both real power and reactive power are critical to maintaining system reliability, and while demand response decreases both real power demand and reactive power demand, it does not generate power. The available demand response resources are few in number, and there is no indication in the record that market incentives could substantially and rapidly increase demand response over the anticipated emergency timeframe. PJM reports that it

³ The North American Electric Reliability Corporation (NERC) Glossary, as adopted by the NERC Board of Trustees, defines "real power" as "[t]he portion of electricity that supplies energy to the Load" — that is, to customers. Glossary of Terms Used in NERC Reliability Standards (updated Oct. 6, 2017), http://www.nerc.com/files/glossary_of_terms.pdf.

⁴ The NERC Glossary defines "reactive power" as "[t]he portion of electricity that establishes and sustains the electric and magnetic fields of alternating-current equipment. Reactive Power must be supplied to most types of magnetic equipment, such as motors and transformers. It also must supply the reactive losses on transmission facilities. Reactive Power is provided by generators, synchronous condensers, or electrostatic equipment such as capacitors and directly influences electric system voltage. It is usually expressed in kilovars (kvar) or megavars (Mvar)." *Id.*

⁵ This analysis applies to both the 90-day term of Order No. 202-17-4 and the estimated remaining time for the Skiffes Creek Transmission Project. The latter is expected to take 18-20 months. Four months have passed since construction commenced.

⁶ When load is reduced, the requisite reactive power required by the system is proportionally reduced. DOE does not treat that as reactive power support akin to the ancillary services provided by Yorktown Units 1 and 2, however, because demand response merely removes the need for some reactive power support rather than actively providing it.

Summary of Findings for Department of Energy Order No. 202-18-1

has approximately 26 MW of demand response available during the 2017/2018 Planning Year, but just 0.7 MW of demand response resources are available year-round. Email from S. Pincus to R. Batra (Oct. 23, 2017), included in the docket of this Order.⁷ Additionally, Dominion reports that it has roughly 20 MW of Demand Side Management capability—specifically, remote air conditioning control, limited to a total of 120 hours and 30 days during the summer months. *Id.* Dominion also can curtail a large industrial customer by an average of 75 MW for transmission emergencies, but this curtailment is available only when the customer's load is about 99 MW, so that the reduced customer load is not more than 24 MW. *Id.* Even during the summer of 2017, the customer's load averaged 40 MW, well below the threshold for load curtailment. *Id.* Demand response is a voluntary program that even participating customers can decline to follow (at risk of contractual penalties). As such, PJM or Dominion cannot guarantee load reduction from demand response. Even if demand response were compulsory, it cannot provide reactive power benefits equivalent to generation units. For all of these reasons, reliance on demand response is not a workable solution to the reliability concerns at issue.

Second, distributed energy resources, such as rooftop solar and other behind-the-meter generation, also are insufficient to address the reliability concerns. Like demand response, behind-the-meter generation reduces the load a utility serves. But unlike demand response, distributed energy resources have the potential of adding supply to the system. This benefit is reduced, however, by two issues: (1) distributed energy resources are not assured because their availability depends on variable factors, such as solar radiation; and (2) reactive power support from distributed energy resources cannot be aggregated in a linear fashion, making its benefits too geographically constrained to be useful across the same area served by Yorktown Units 1 and 2. Distributed energy resources or behind-the-meter programs are also voluntary. Hence, customers cannot be compelled to install or use behind-the-meter generation. Current available resources are insufficient,⁸ and fundamental questions about how to fairly compensate owners likely preclude substantial shifts in this resource over the anticipated emergency timeframe.⁹ Thus, relying on

⁷ The annual availability schedule is as follows: 0.7 MW from January through April, 11 MW in May, 25.5 MW from June through September, 11 MW in October, and 0.7 MW from November to December.

⁸ PJM's forecast for distributed solar generation across the entire Dominion zone—not the smaller North Hampton Roads area—is 130MW (real power) at typical peaking conditions. Email from S. Pincus to R. Batra (Oct. 23, 2017). In weather patterns unfavorable to solar power generation, that number could drop to zero.

⁹ Earlier this year, FERC outlined the challenges in pricing sales of distributed energy back to the grid. See Policy Statement, Utilization of Electric Storage Resources for Multiple Services When Receiving Cost-Based Rate Recovery, 158 FERC ¶ 61,051 (Jan. 19, 2017). An “electric storage resource” is “a resource capable of receiving electric energy from the grid and storing it for later injection of electricity back to the grid.” *Indianapolis Power & Light Co. v. Midcontinent Indep. Sys. Operator, Inc.*, 158 FERC ¶ 61,107 at P 6 n.14 (Feb. 1, 2017). That definition “include[s] all types of electric storage technologies, regardless of their size, storage medium (e.g., batteries, flywheels, pumped-hydro), or whether located on the interstate grid or on a distribution system.” *Id.*

Summary of Findings for Department of Energy Order No. 202-18-1

variable or intermittent resources for reactive power is not a solution to reliability concerns.

Finally, rechargeable battery storage, even if technically feasible,¹⁰ is not a viable solution because it would require a substantial financial outlay for long-life equipment to address a short-term problem that could be resolved in as little as 14 months when the Skiffes Creek Transmission Project comes online. To serve as an alternative to Yorktown Units 1 and 2, PJM and Dominion would have to procure enough battery storage to be on par with those units.¹¹ Insufficient battery storage would lead to the RAS being triggered, automatically shedding 950 MW of load. Suggesting that battery storage is a workable solution, Sierra Club's expert noted three recent examples: (1) a 20 MW, four-hour battery storage system; (2) a pair of four-MWh batteries, and (3) a 100 MW rechargeable storage system. See Sierra Club Exhibit F at 18-19. In this case, Dominion would need to procure approximately 270 MW (net) of battery storage to replace the output of Yorktown Units 1 and 2 adequately and reliably. Doing so would come at a high cost to ratepayers without a proven benefit if the full 270 MW is not required during the anticipated emergency timeframe.

Under Sierra Club's first example, Southern California Edison (SCE) recently procured four hours of 20 MW (80MWh) energy storage from Canada's AltaGas Ltd.¹² The Pomona Energy Storage Facility, built to house the batteries and inverters, was completed in under four months and came online in December 2016.¹³ The project, with its 80 MWh of discharge capacity, cost between \$40 million and \$45 million.¹⁴ Scaling those figures up for a rough estimate, a similar storage facility capable of 270 MW (net) output for four hours could cost approximately \$540 million to \$600 million. The cost of Tesla's project in South Australia, noted by Sierra Club as its third example, is estimated to be \$576 to \$730 per kilowatt,¹⁵ which roughly equates to between \$622 million and \$788

¹⁰ Unlike demand response or behind-the-meter generation, PJM and Dominion could deploy battery storage that could be available without contingencies, and some portion of direct-current battery output could be converted for reactive power support.

¹¹ Although it would be theoretically possible to deploy a combination of the alternative resources proposed by Sierra Club such that the required amount of battery storage could be reduced, it was the Department's judgment that, due to the minimal amount of demand response and behind-the-meter resources available, modeling combination scenarios would not serve to further inform DOE's review.

¹² <https://www.altagas.ca/sites/default/files/2017-02/Pomona%20Energy%20Storage%20brochure.pdf>.

¹³ *Id.*

¹⁴ *Id.*; <http://www.reuters.com/article/us-australia-power-tesla/teslas-big-battery-races-to-keep-south-australias-lights-on-idUSKCN1C40DD>.

¹⁵ <https://www.reuters.com/article/us-australia-power-tesla/teslas-big-battery-races-to-keep-south-australias-lights-on-idUSKCN1C40DD>. The costs described in Australian dollars (\$750 to \$950) were converted to U.S. dollars in this document using a market-closing exchange rate of 0.7687 U.S. dollars to 1 Australian dollar, as reported by the Wall Street Journal on Monday, October 30, 2017. See http://www.wsj.com/mdc/public/page/2_3021-forex.html.

Summary of Findings for Department of Energy Order No. 202-18-1

million for the 270 MW, four-hour storage system contemplated earlier. Costs are highly variable and depend on procurement contract negotiations. But they would run into the hundreds of millions of dollars, and ratepayers would absorb a significant portion of those charges.¹⁶ The examples Sierra Club's expert mentions address different situations, as it appears the battery storage systems were purchased consistent with overall system planning goals, as opposed to the situation here that would add a costly new resource to an existing system as a short-term fix while longer-term solutions were constructed. In short, none of the examples presented is applicable to the reliability situation faced here. While battery storage has improved markedly, it is not a workable solution to the substantial reliability concerns the Department has addressed in this particular geographic area.

Using Yorktown Unit 3 to alleviate the emergency is PJM and Dominion's only remaining option, and its operating constraints prevent it from addressing the emergency. Unit 3 is oil-fired and has a maximum real output of 789 MW, but it is unreliable and can only operate at an 8 percent capacity factor (63 MW) to comply with EPA's Mercury and Air Toxics Standards (MATS). PJM Application (June 13, 2017) at 18; Email from S. Pincus to R. Batra (Oct. 23, 2017); Email from M. Regulinski to R. Batra (Nov. 2, 2017), included in the docket of this Order. Dominion has stated at least five significant reasons for its concerns about Unit 3: structural duct work and damper repairs, turbine inspections and repairs, waterbox repairs, turbine valve work and repairs, and various boiler tube leaks. *See id.* Apart from power output that is only a fraction of what Units 1 and 2 can produce, Unit 3 is so unreliable that Dominion has only operated it for 54 days in the past three (3) years. *See* Yorktown Unit 3 Days of Operation 2014-2016, included in the docket of this Order. Unit 3 is not a viable alternative due to limitations that prevent PJM from relying on that unit consistently and for an extended period of time.

Unlike the Sierra Club's proposed alternatives, either individually or in the aggregate, the Yorktown coal units can resolve the reliability emergency. They provide both real power and reactive power support, without contingencies, and at the levels required. Without the Yorktown Units, PJM cannot ensure the reliability of the grid in the North Hampton Roads area throughout the transmission upgrade schedule. For that reason, the authorization of the Yorktown Units to operate for reliability purposes only, despite being less than ideal, remains the *best* available option to meet the identified emergency.

¹⁶ For example, although SCE and Tesla did not disclose the contract price for Tesla's storage units at SCE's Mira Loma substation, SCE filed a rate case with the California Public Utilities Commission on March 30, 2017, seeking in part to recover costs of those facilities from its ratepayers. *See Application of Southern California Edison Company (U 338-E) for Recovery of Aliso Canyon Utility Owned Energy Storage Costs* (Mar. 30, 2017), [http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/FE377273FDBE2408882580F3007B32BE/\\$FILE/A1703XXX-SCE%20Application%20for%20Cost%20Recovery%20of%20ACES%20UOS.pdf](http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/FE377273FDBE2408882580F3007B32BE/$FILE/A1703XXX-SCE%20Application%20for%20Cost%20Recovery%20of%20ACES%20UOS.pdf).

Summary of Findings for Department of Energy Order No. 202-18-1

Sierra Club's reference to the 2005 Mirant 202(c) order, for the proposition that the Department can and should require ordered entities to obtain alternative energy sources during the period of an emergency, is misplaced. Specifically, Sierra Club cites the following discussion in Order No. 202-05-3 (the Mirant Order): "DOE expects that the DCPSC, having sought an emergency order, will take such actions as are within its authority to provide adequate and reliable electric service for the Central D.C. area including, for example, expediting approval of PEPCO transmission system upgrades and instituting demand response programs." Order No. 202-05-3, at 9 (Dec. 20, 2005), https://energy.gov/sites/prod/files/oeprod/DocumentsandMedia/mirant_122005_2.pdf. However, at least two key differences distinguish the September Order from the Mirant Order. First, Dominion already has a demand response program. As explained above, Dominion's demand response program cannot ensure reliability on the North Hampton Roads power grid during a transmission outage. Second, the Mirant Order urged the D.C. Public Service Commission to "take all reasonable actions." Again as explained above, even if each of Sierra Club's alternatives were viewed as reasonable, the alternatives are inadequate to solve the reliability emergency on their own.

A determination not to order Yorktown Units 1 and 2 to operate could result in severe collateral effects—namely, load shedding across the North Hampton Roads area. Power would be shut off to thousands of customers, which could impact over half a million people.¹⁷ Because the RAS is activated when load reaches a critical threshold, whether that threshold is triggered by a transmission outage or by heightened power demand, the full load is shed immediately. That is, the shedding is not piecemeal—950 MW of power immediately go off-line upon activation of the RAS. Without sufficient backup generation, the risk of load shedding pursuant to the RAS is far greater. While the September Order is directed at avoiding the emergency presented by that loss of power, it also takes into account the Department's independent analysis of the reliability situation in the North Hampton Roads area and an evaluation of proposed alternatives.¹⁸ Without an emergency order the region may suffer heavy load shedding, and the Department has determined to protect the public interest by exercising its authority to avoid the loss of power that otherwise would result.

¹⁷ See Summary of Findings at 4 (noting that the North Hampton Roads area population exceeded 660,000 in July 2016, according to U.S. Census estimates).

¹⁸ In light of a permanent solution coming online soon, this analysis did not model all permutations of alternative resources; instead, in the Department's judgment, an examination of whether there were any realistic substitute resources during the anticipated emergency timeframe was conducted.

The Department Complied With Its Environmental Review Obligations

Sierra Club also contends that the Department did not adequately assess the impact of its Order under the National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.* NEPA requires federal agencies to consider the potential environmental impacts of their proposed actions before taking action. The regulations of the Council on Environmental Quality (CEQ) implementing NEPA, codified at 40 C.F.R. parts 1500–1508, establish three levels of review for proposed actions subject to NEPA: categorical exclusion (CX) determinations,¹⁹ environmental assessments (EA),²⁰ and environmental impact statements (EIS).²¹ In this instance, Sierra Club highlights the issuance of the September Order as the underlying action subject to NEPA review. The Department acted consistently with NEPA by issuing a CX determination, which is based on its assessment of the proposed action and determination that it fits within a category of actions previously established by the Department and found not to have a significant impact, individually or cumulatively, on the environment. *See Record of Categorical Exclusion Determination issued on September 11, 2017.*

Specifically, the proposed action fits within the CX for power marketing services and power management activities. That CX covers “[p]ower marketing services and power management activities (including, but not limited to, storage, load shaping and balancing, seasonal exchanges, and other similar activities), provided that the operations of generating projects would remain within normal operating limits.” *See* 10 C.F.R. Part 1021, Subpart D, Appendix B, B4.4.²² The September Order requires Dominion to “operate Units 1 and/or 2 of the Yorktown Power Station as directed by PJM only as needed to address reliability issues.” September Order at 2. Such operation fits squarely within the power management activities of load shaping and balancing that are included in B4.4.²³ Sierra Club does not dispute that the September Order authorizes covered power management activities. Instead, Sierra Club argues that the authorized operations would not be “within normal operating limits.” Petition at 7.

¹⁹ A CX is a category of actions that a federal agency has determined do not individually or cumulatively have a significant impact on the environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is normally required. *See* 40 C.F.R. § 1508.4.

²⁰ An EA is a relatively brief analysis conducted to determine whether a proposed action may have a significant impact on the environment and, thus, whether an EIS is required. *See id.* § 1508.9.

²¹ An EIS is a detailed analysis of the potential environmental impacts of a proposed action (and alternatives) that may have a significant impact on the environment. *See id.* § 1508.11.

²² This CX was revised during a 2011 DOE rulemaking, in part, to make clear that it applies to power management activities, including those evaluated or overseen, even if not directly undertaken, by the Department. *See* 76 Fed. Reg. 214, 227 (Jan. 3, 2011).

²³ “Balancing” was added to “load shaping” in B4.4 during the rulemaking to make clear that the CX is intended to cover load balancing which “helps ensure system reliability by managing energy resources to be equal with load.” 76 Fed. Reg. 63,764, 63,777 (Oct. 13, 2011).

Summary of Findings for Department of Energy Order No. 202-18-1

Sierra Club’s argument rests on its mistaken interpretation that “normal operating limits” refers to compliance with environmental standards, including MATS. *Id.* Rather, “normal operating limits” refers to elements of power generation capacity, not permit or other regulatory limits.

First, the Sierra Club’s interpretation fails to account for the words “would remain” that precede “within normal operating limits” in the CX. “Would remain” provides important context, demonstrating that the CX contemplates the proposed operation being evaluated against the current operation to see if the operations will be consistent, *i.e.*, “would remain within normal operating limits.” Sierra Club’s interpretation would require one to evaluate the proposed operation against other operating units, reading the words “would remain” out of the regulation. As such, Sierra Club’s interpretation of the CX is erroneous and conflicts with the regulatory text.

Second, Sierra Club offers no authority in support of its interpretation. As explained below, the CX refers to “normal operating limits,” which DOE interprets to refer to elements of power generation capacity, not permit or other regulatory limits, such as Clean Air Act emissions limits as Sierra Club contends. The text of the regulation and industry practice both amply support the Department’s interpretation of its own CX. Moreover, the Supreme Court has explained that “[w]hen an agency interprets its own regulation, the Court, as a general rule, defers to it unless that interpretation is plainly erroneous or inconsistent with the regulation.” *Decker v. Nw. Envtl. Def. Ctr.*, 568 U.S. 597, 613 (2013) (internal quotation marks omitted) (citing *Chase Bank USA, N.A. v. McCoy*, 562 U.S. 195, 208 (2011) (quoting *Auer v. Robbins*, 519 U.S. 452, 461 (1997))).

In its CX determinations for these orders, the Department interpreted the language “would remain within normal operating limits” to mean that operations would remain within normal *operational* capacities and limits. *See* CX determinations for the June and September Orders; *see also* CX Determination for Order No. 202-17-1 (Categorical Exclusion Determination, Grand River Dam Authority).²⁴ The operational capacities for Units 1 and 2 are reflected in their maximum real outputs of 159 MW and 164 MW

²⁴ The Department’s establishment of other CXs related to electrical power and transmission supports its interpretation that normal operating limits relates to operational capacity. For example, for some actions, the Department has established corollary categories of actions that typically require a CX, EA, or EIS. *See, e.g.*, the CX at B4.1, which covers certain electric power acquisitions involving “existing generation resources operating within their normal operating limits.” 10 C.F.R. Part 1021, Subpart D, Appendix B. The EA corollary for this CX is C7, which applies, in part, to “changes in the normal operating limits of generation resources equal to or less than 50 average megawatts,” and the D7 EIS corollary, which applies to “changes in the normal operating limits of generation resources greater than 50 average megawatts.” *Id.* It is clear from the focus on MWs in these provisions that the term “normal operating limits” refers to operational capacity.

Summary of Findings for Department of Energy Order No. 202-18-1

respectively, with a net output²⁵ from each unit of 135 MW. See PJM Application (June 13, 2017) at 5; Email from M. Regulinski to R. Batra (Sept. 5, 2017); Email from M. Regulinski to R. Batra (Oct. 27, 2017). The maximum real outputs represent the high end of the operating parameters for these units. The objective is to operate the units consistent with these outputs; such operation is consistent with the prescribed normal operating limits.²⁶ The Department's determination that the units will remain within normal operating limits is supported by the record. As evidenced by the operational data provided to date for operations under the June and September Orders, these units have remained within their maximum real output limits. See Renewal Application, Attachment 1; Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4 (Sept. 28, 2017), Attachments 1, 3, and 5. Pursuant to the September Order, these units will remain within their operational capacities and are expected to operate below their capacity given the restrictions provided in the September Order (*i.e.*, operate as directed by PJM only as needed to address reliability issues and exhaust all reasonably and practically available resources prior to operating). In fact, the units are anticipated to run only 81 days over the 18-20 month construction period, Answer at 10, which is 81 out of 540-600 days or 13-15% of the time.

Third, DOE's interpretation is consistent with the common understanding of the term "operating limits" in the technical community and in the context of the power generation facilities at issue. For example, NERC defines "equipment rating" to mean "[t]he maximum and minimum voltage, current, frequency, real and reactive power flows on individual equipment under steady state, short-circuit and transient conditions, as permitted or assigned by the equipment owner." Glossary of Terms Used in NERC Reliability Standards (updated Oct. 6, 2017), http://www.nerc.com/files/glossary_of_terms.pdf. NERC defines "normal rating" as "[t]he rating as defined by the equipment owner that specifies the level of electrical loading, usually expressed in megawatts (MW) or other appropriate units that a system, facility, or element can support or withstand through the daily demand cycles without loss of equipment life." *Id.*

In the alternative, even under Sierra Club's proffered interpretation that the phrase "normal operating limits" includes considerations beyond operational capacity, such as Clean Air Act emissions requirements, the September Order and operation of Units 1 and 2 pursuant to that Order would meet the parameters of B4.4. Sierra Club argues that the operation of these units will not be within normal operating limits because such operation would not be in compliance with MATS. See Petition at 7. However, as Sierra Club acknowledges, these units are proposed for deactivation because they are not, and never

²⁵ The net MW output is "the gross output of the units reduced by station auxiliary power, which is the power needed to operate the station itself and the generation units." Email from M. Regulinski to R. Batra (Oct. 27, 2017).

²⁶ While it is possible for a unit to exceed its maximum real outputs, doing so is ill-advised, as it could result in overheating, equipment damage, inefficiencies, and a shortened operational life of the unit.

Summary of Findings for Department of Energy Order No. 202-18-1

have been, in compliance with MATS. *See id.* Accepting *arguendo* Sierra Club's interpretation that the phrase "normal operating limits" under which Units 1 and 2 "would remain" refers to how the units have operated in relation to MATS compliance, then it follows that "normal operation" of these particular units is non-compliance. In other words, under this reading of the regulation, "normal operating limits" and MATS non-compliance would be co-extensive.

The MATS took effect in April 2012. *See* 77 Fed. Reg. 9304 (Feb. 16, 2012). Section 112(i)(3)(A) of the Clean Air Act allowed existing power plants three years—*i.e.*, until April 2015—to comply with MATS. *See* 42 U.S.C. § 7412(i)(3)(A). During these three years, Yorktown Units 1 and 2 were not operating in compliance with MATS. Section 112(i)(3)(B) of the Clean Air Act further allowed for a one-year extension of compliance until April 2016. *See id.* § 7412(i)(3)(B). Dominion sought and received this compliance extension from the Virginia Department of Environmental Quality (VADEQ). Thereafter, Dominion sought and received an ACO from EPA. *See* AED-CAA-113(a)-2016-0005. The ACO allowed the Yorktown Units 1 and 2 to operate, under certain conditions, through April 15, 2017. *See id.* at 8. In the five and a half years since the MATS took effect, the Yorktown units have never been equipped to comply with MATS. Nevertheless, they have operated, and for five of those years, they were operating pursuant to allowances in the Clean Air Act. The Department's Orders allow for continued conditional operation, incorporating conditions contained in EPA's ACO, consistent with how these units have operated (as relates to MATS) for years.

In addition to the applicability of the B4.4 CX, Sierra Club argues that the June Order and the September Order are major federal actions significantly affecting the environment. *See* Petition at 6. Sierra Club points to the mercury and hydrogen chloride (HCl) per-pound emissions estimates (3.3068 lbs./TBtu and 0.0478 lbs./MMBtu, respectively)²⁷ that were provided by PJM in its Renewal Application and notes that these estimated emissions exceed the MATS for these two pollutants. *See id.*; Renewal Application, Attachment 2. First, these per pound emissions estimates are based on emissions factors, and the projected monthly emissions provided by PJM are based on conservative operational assumptions and are intended to be bounding. For example, PJM's monthly emissions estimates are based on its expectations that there will be a total of 81 days over load thresholds that will necessitate operation of Units 1 and/or 2. *See* Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4 (Sept. 28, 2017), Attachment 4. The monthly emissions estimates "are based on full operating days" and conservatively assume an operating day consists of "24 hours of operation, 16 hours at low load and 8 hours at maximum load." Report on Yorktown Units 1 and 2 Operations

²⁷ PJM's per pound emissions estimates for mercury and HCl are based on emissions factors from AP-42, Fifth Edition. *See* Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-2 (Aug. 24, 2017) at 4. Mercury emissions were based on AP-42, Table 1.1-18 and HCl was based on AP-42, Table 1.1-15. *See id.*

Summary of Findings for Department of Energy Order No. 202-18-1

Pursuant to Order No. 202-17-2 (Aug. 24, 2017) at 4. Second, in order to minimize emissions, the Secretary included conditions in the September Order to minimize the impacts from operation of Yorktown Units 1 and 2. As such, there is no indication that the emissions estimated by PJM will necessarily be reached.

Moreover, DOE consulted with EPA about the September Order, and EPA had the opportunity to suggest additional conditions it determined “necessary to minimize any adverse environmental impacts to the extent practicable.” 16 U.S.C. § 824a(c)(4)(B). EPA did not suggest additional conditions or indicate concerns with DOE’s approach. *See Email from L. Starfield to P. Hoffman (Sept. 11, 2017), available at <https://energy.gov/oe/downloads/additional-documents-order-no-202-17-4>.*

Nevertheless, there is a reasonable expectation that some emissions could exceed the MATS. Yorktown Units 1 and 2 are not equipped to be MATS compliant. As all parties have acknowledged, that is the reason Dominion seeks to retire the units and why it sought and was granted compliance extensions from VADEQ and EPA, and in part, why the September Order²⁸ was requested.

After stating the per pound emissions estimates, Sierra Club then cites to PJM’s estimates for total emissions of mercury and HCl over the projected 18-20 month period and concludes, without any supporting analysis related to the operation of Units 1 and 2, that “[t]hose emissions will have a significant impact.” Petition at 6. DOE assessed the constrained operation allowed under the September Order and determined that the constraints were consistent with those previously imposed by EPA in the ACO, and that such operations would not result in significant impacts. Sierra Club cites to selective parts of EPA’s May 2011 proposed rulemaking related to National Emissions Standards for Hazardous Air Pollutants and Standards of Performance which are inapposite to the Order,²⁹ and states that mercury is hazardous even in small quantities and that HCl can cause acute and chronic health harms. *See id.* Also, as an attachment to its Petition, Sierra Club includes a 2011 EPA memorandum related to a non-Hg case study of chronic

²⁸ “[A]ction taken by a party, that is necessary to comply with an order issued under this subsection” which “results in non-compliance with . . . any Federal, State, or local environmental law or regulation . . . shall not be considered a violation . . . or subject such party to any requirement, civil or criminal liability, or a citizen suit.” 16 U.S.C. § 824a(c)(3).

²⁹ For example, Sierra Club notes a dose of .0001mg/kg-day for mercury and states that exposures above that level raise health concerns. *See* Petition at 6. This dose is the “reference dose” (RfD) for methyl mercury, which was described during the rulemaking as “the amount of a chemical which, when ingested daily over a lifetime, is anticipated to be without adverse health effects to humans, including sensitive subpopulations.” 76 Fed. Reg. 24,976, 24,982 (May 3, 2011). The rulemaking further described the RfD as “an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily exposure . . . that is likely to be without an appreciable risk of deleterious effects during a lifetime.” *Id.* at 25,000. This scenario plainly does not reflect expected exposure based on operations under the September Order. The operations of Units 1 & 2 will be limited to generation needed to meet grid reliability, and will be of a limited 18-20 month duration.

Summary of Findings for Department of Energy Order No. 202-18-1

inhalation risks that does not correlate to the emissions or potential exposures related to the September Order.³⁰ See Petition at 6; EPA Memorandum (Mar. 16, 2011) attached to Petition. Yet, Sierra Club has provided no applicable data or analysis in support of this claim, and therefore has failed to demonstrate significant impacts from the subject Order.

Finally, Sierra Club notes that CEQ has NEPA procedures that are applicable in emergency situations. See Petition at 8. The Department agrees that § 1506.11 provides that “[w]here emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these regulations, the federal agency taking the action should consult with the Council about alternative arrangements.” As explained above, the Department concluded that issuance of the September Order would not result in significant environmental impacts. Therefore, alternative arrangements and consultation were not required. In this case, the Department has chosen to proceed consistently with one of the established levels of NEPA review: issuance of a CX determination.³¹

Sierra Club concludes by stating that the extended nature of the situation provides time for DOE to conduct additional NEPA review and to inform subsequent renewals. See Petition at 9-10. As detailed above, the Department has complied with NEPA by issuing a CX determination. Nevertheless, the Department will evaluate any future renewal applications from PJM and assess the appropriate level of NEPA review based on the facts presented at that time.

Conclusion

When emergency situations arise, it is critical to have the tools to respond to them quickly, efficiently, and effectively. The Department issued the September Order because, in the Secretary’s judgment, its provisions would best meet the emergency and serve the public interest in the North Hampton Roads area. The operative interest is in keeping the lights on, allowing the PJM-mandated transmission upgrades to continue, while to the maximum extent practicable remaining consistent with environmental law and minimizing the adverse effects of power generation on human health and the environment. The September Order is tailored to accomplish those goals. Accordingly, Sierra Club’s petition for rehearing is denied.

³⁰ Sierra Club cites this inapposite study because it references the Yorktown facility. The study was actually based on 5-year concentrations for pollutants that were calculated based on information from 2005-2009, and the maximum individual risk for each facility was calculated based on “risk associated with a continuous lifetime (24 hours per day, 7 days per week, and 52 weeks per year for a 70-year period) exposure to the maximum concentration.” EPA Memorandum at 12.

³¹ Sierra Club incorporates by reference Section IV.C of its original Petition. See Petition at 8 n.5. The substantive arguments raised therein have been addressed above.

From: Konieczny, Katherine
To: Bittner, Kathy (CONTR); Jereza, Catherine
Cc: Drake, Christopher; Batra, Rakesh; Rosenbaum, Matthew
Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)
Date: Monday, November 06, 2017 3:50:55 PM
Attachments: [Summary of Findings Order No. 202-18-1.pdf](#)

Looks like the right one. Attached as pdf with name omitting the date/time. I also added one email address to the draft notification email below. Kevin Finto is outside counsel to Dominion and he signed Dominion's last filing.

-Kathy K

From: Bittner, Kathy (CONTR)
Sent: Monday, November 06, 2017 3:39 PM
To: Jereza, Catherine
Cc: Konieczny, Katherine ; Drake, Christopher ; Batra, Rakesh ; Rosenbaum, Matthew
Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Sure, here it is.

From: Jereza, Catherine
Sent: Monday, November 06, 2017 3:36 PM
To: Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>
Cc: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Kathy – do you have the electronic version that includes John Lucas' edits? Can you send so we can make sure the right version goes out.

Once we have that, I'll be sending the email out below.

Thanks!

Katie

From: Jereza, Catherine
To: Steven.Pincus@pjm.com; craig.glazer@pjm.com; michael.regulinski@dominionenergy.com; sanjay.narayan@sierraclub.org; casey.roberts@sierraclub.org; bridget.lee@sierraclub.org; kfinto@hunton.com

Cc: Walker, Bruce; Hoffman, Patricia; Batra, Rakesh; Konieczny, Katherine

Subject: DOE Order 202-18-1

Good evening,

Today the Secretary of Energy issued Order No. 202-18-1. The Order and Summary of Findings are attached.

Regards,

Katie

From: Bittner, Kathy (CONTR)
Sent: Monday, November 06, 2017 3:07 PM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

Just wanted to make sure that you are aware that the order was signed (see attached).

Let me know if you need anything else.

Thanks,

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: kathy.bittner@hq.doe.gov

From: Bittner, Kathy (CONTR)

Sent: Friday, November 03, 2017 3:31 PM

To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>

Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>

Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

FYI..I took the package to Exec Sec. It has cleared Exec Sec review and is with the Deputy Secretary

now.

Have a great weekend.

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: kathy.bittner@hq.doe.gov

From: Jereza, Catherine

Sent: Friday, November 03, 2017 12:35 PM

To: Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>

Subject: FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Kathy – I'm in my office now.

Cheers

Katie

Summary of Findings

Department of Energy Order No. 202-18-1

November 6, 2017

Section 202(c) of the Federal Power Act (FPA) (codified at 16 U.S.C. § 824a(c)), through section 301(b) of the Department of Energy Organization Act (codified at 42 U.S.C. § 7151(b)), authorizes the Secretary of Energy, upon finding “that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy, or of fuel or water for generating facilities, or other causes,” to issue an order “requir[ing] . . . such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [the Secretary’s] judgment will best meet the emergency and serve the public interest.” 16 U.S.C. § 824a(c)(1). If the order “may result in a conflict with [an] environmental law or regulation,” then the Secretary must “ensure that such order requires generation, delivery, interchange, or transmission of electric energy only during hours necessary to meet the emergency and serve the public interest, and, to the maximum extent practicable, is consistent with any applicable . . . environmental law or regulation and minimizes any adverse environmental impacts.” *Id.* § 824a(c)(2). Orders issued under FPA section 202(c) “that may result in a conflict with [an] environmental law or regulation” expire 90 days after they are issued, but the Secretary “may renew or reissue such order[s] . . . for subsequent periods, not to exceed 90 days for each period, as [the Secretary] determines necessary to meet the emergency and serve the public interest.” *Id.* § 824a(c)(4)(A).

Order No. 202-17-4 (the September Order), issued on September 14, 2017, authorizes the operation of coal-fired Yorktown Power Station Units 1 and 2 pursuant to section 202(c), for reliability purposes only and under strict conditions, through December 13, 2017. On October 6, 2017, Sierra Club moved to intervene and petitioned for rehearing of the September Order pursuant to FPA section 313(a), 16 U.S.C. § 825l(a).¹ *Sierra Club’s Motion Petition for Rehearing, and Motion to Intervene* (Oct. 6, 2017) (Petition). On October 20, 2017, the Department of Energy (DOE or Department) received an answer to Sierra Club’s petition from the Virginia Electric and Power Company (Dominion) and PJM Interconnection LLC (PJM). On October 23, 2017, PJM responded to a list of questions from the Department’s Office of Electricity Delivery and Energy Reliability, and further clarifications from PJM and Dominion are noted below.

¹ Issuance of today’s Order falls within the timeframe provided under FPA section 313(a). See 16 U.S.C. § 825l(a) (“Unless the [Secretary] acts upon [an] application for rehearing within thirty days after it is filed, such application may be deemed to have been denied.”); 10 C.F.R. § 205.5(a)(1); see also *Kan. Cities v. FERC*, 723 F.2d 82, 85 n.2 (D.C. Cir. 1983) (affirming the Federal Energy Regulatory Commission (FERC) regulatory interpretation of a section 313(a) deadline extension to fall on a business day).

Summary of Findings for Department of Energy Order No. 202-18-1

For the reasons discussed in this Summary of Findings, and as reflected in Order No. 202-18-1, Sierra Club's petition for rehearing is denied.

Sierra Club raises two categories of objections to the Department's compliance with FPA section 202(c):

- (1) The Department's failure to (a) properly consult with EPA under Section 202(c) and to (b) add further measures to reduce the Yorktown Units' hours of operation and emissions; and
- (2) The Department's failure to properly assess the impacts of its action under the National Environmental Policy Act and its reliance on an inapplicable categorical exclusion.

The Department's objective was, and remains, to minimize the use of either unit, in light of environmental considerations, without compromising or jeopardizing the reliability of the power grid in the North Hampton Roads area. To accomplish this, the Department must balance competing challenges to arrive at a solution that "in [the Secretary's] judgment will best meet the emergency and serve the public interest." 16 U.S.C. § 824a(c)(1).

The Department Complied with Section 202(c) of the Federal Power Act

A key component of the Sierra Club's first objection is its claim that DOE did not fulfill the statute's consultation requirement. The Sierra Club, however, misreads section 202(c), arguing for a scope and procedural complexity of consultation that is not found in the statute. In renewing or reissuing certain orders under section 202(c), the statute requires DOE to "consult with the primary Federal agency with expertise in the environmental interest protected by [a conflicting] law or regulation" and to "include in any such renewed or reissued order such conditions as such Federal agency determines necessary to minimize any adverse environmental impacts to the extent practicable." 16 U.S.C. § 824a(c)(4)(B).

In this case, DOE consulted with the relevant federal agency, the U.S. Environmental Protection Agency (EPA). Following consultation, EPA concurred in writing with the Department's approach in the September Order. EPA did not recommend or propose further conditions on matters within its purview in the September Order or indicate that additional or different consultation with EPA was desired. The FPA does not specify procedures or substantive requirements for consultation under this provision. Rather, it requires only that a consultation take place and, if the consulted agency (here, EPA) proposes additional conditions in a renewal order, that such conditions be included in the order unless DOE "determines that such condition would prevent the order from adequately addressing the emergency" and publicly explains its determination. Here, EPA recommended no additional conditions. Rather, EPA expressly acknowledged the

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September Order's consistency with EPA's April 2016 Administrative Compliance Order (ACO) and expressed no concerns about DOE's approach.

Indeed, the statute expressly recognizes that, as occurred here, the consulted agency might not propose further conditions: “[t]he conditions, *if any*, submitted by such Federal agency shall be made available to the public.” *Id.* (emphasis added). Thus, Sierra Club incorrectly reads the statute as requiring the consulted agency (*i.e.*, EPA) to verify, independently, DOE's compliance with FPA section 202(c)(2). The statute contains no such requirement or mechanism for such independent verification. Rather, FPA section 202(c)(4) provides the consulted agency the opportunity to propose conditions in a DOE order that would either supplement or substitute for conditions to be ordered by DOE and as to which DOE has discretion to accept or reject, subject to the requirement to explain its reasoning. Sierra Club incorrectly seeks to transform this consultation process from one in which an agency with specific environmental expertise advises DOE on conditions to one in which the consulted agency exercises an oversight role and must approve DOE's actions. However, Sierra Club offers no support for that interpretation, and DOE finds nothing in the text of the statute to support such an interpretation. DOE's consultation with EPA prior to issuing the September Order satisfied the statutory requirements.²

Next, Sierra Club suggests that alternative sources of power can and should replace Yorktown Units 1 and 2 generation during transmission outages or high load conditions, either of which could trigger the Remedial Action Scheme (RAS) that automatically sheds roughly 950 MW of load to prevent voltage collapse. *See Summary of Findings for Department of Energy Order No. 202-17-4*, at 4 (Sept. 14, 2017) (Summary of Findings). Notably, the Sierra Club acknowledges that the challenged September Order requires PJM and Dominion to exhaust available resources, including demand response and behind-the-meter generation resources, prior to operating Yorktown Units 1 or 2. Petition at 9-10. This reduces Sierra Club's objection to the fact that the September Order does not require the consideration of additional resources that may become available “over the course of the emergency.” *Id.* at 10. In other words, Sierra Club concedes that the Department correctly evaluated available alternatives but quibbles that the Department should have analyzed speculative new resources as well.

While the Department does not oppose the use of alternative power sources generally, it explained in the September Order that, in its judgment and based on the record before it, the available alternative power cannot fully compensate for the loss of Yorktown Units 1 and 2 generation, and would therefore not suffice to preserve the reliability of the North Hampton Roads grid:

² Informal communications with EPA staff have continued. Despite learning of the Sierra Club's arguments in the October 6 petition, EPA personnel have not expressed an intent to add conditions.

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The only sufficient alternative to the RAS and its resulting outages for up to approximately 150,000 customers is the emergency operation of Yorktown Units 1 and 2. The demand response available to PJM is a small fraction of the load threshold and is “not sufficient to ensure reliable service.” Likewise, Dominion has limited demand-side management and curtailment capabilities, insufficient for reliability purposes even when fully deployed.

Id. at 6 (citations omitted).

Both the Department’s June 2017 and September 2017 orders specifically require the minimum use of Yorktown Units 1 and 2 that preserves system reliability—and, in fact, PJM and Dominion emphasize that “[h]istory and future projections show that the need [for operation of Yorktown Units 1 and 2] is far less than full time and, in total, may only amount to 81 days over the entire 18-20 month [transmission upgrade] period.”

Motion for Leave to Answer and Answer of Virginia Electric & Power Company and PJM Interconnection LLC, at 10 (Oct. 20, 2017) (Answer). Under section 202(c), the Department is authorized “to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [the Secretary’s] judgment will best meet the emergency and serve the public interest.” The requirement is conjunctive, not disjunctive. The Department acknowledges that minimizing the use of Yorktown Units 1 and 2, both of which were planned to be retired by now, is in the public interest, along with exploring alternative power sources. In the Secretary’s judgment, however, reliance on alternative power sources alone, such as those Sierra Club suggests, does not best meet the emergency. The public interest is not served by the RAS being needlessly activated and power being shut off to 150,000 customers—and hundreds of thousands of people—which would be the result of insufficient generation during a transmission outage.

In assessing the need for an emergency order under section 202(c), the Department independently evaluates the situation, but it is not required to determine every reasonable alternative. The statute requires only that the Secretary use his or her best judgment to meet the emergency and serve the public interest. That judgment includes the determination of which factors play a central role in a given emergency and the weight to assign each such factor. In this situation, the expertise of the applicant was an important factor. The Department received an application from PJM, which is not only the regional transmission organization responsible for managing a transmission system across twelve states and the District of Columbia, but also holds the highest-level, federally-regulated reliability responsibilities for the system it manages. Summary of Findings at 2. The Department’s independent analysis of PJM’s request took into account the extensive earlier reviews conducted by PJM in evaluating the proposed solution. *Id.* at 2-3. Although DOE is not obligated to analyze the viability of alternative resources (especially at the unit level, which is an unbounded analysis if DOE were to consider potential new resources), the

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following analysis broadly explains the rationale behind dispatching Yorktown Units 1 and 2 instead of other categories of alternative resources.

The alternatives Sierra Club presents for consideration (namely expanded demand response and distributed generation resources as well as battery storage) do not best meet the emergency because, unlike Yorktown Units 1 and 2, they cannot guarantee enough dispatchable power, both real³ and reactive,⁴ during excessive load periods or transmission outages. Reliance on alternatives to Yorktown Units 1 and 2 would require both real and reactive power supply, and achieving that over the anticipated remaining emergency timeframe⁵ is infeasible due to a combination of technical and market challenges. The precise amount of dispatchable power needed to replace Yorktown Units 1 and 2 varies based on a combination of the system configuration (e.g., whether any other facilities are offline) and load. The Department's analysis reasonably focused on the worst-case scenario, which would draw on the full output of both Units 1 and 2, or 270 MW (net), and also have the option of providing reactive power support. The combined capacity of all currently-available alternatives does not reach 270 MW (net), and the Department explains below why those alternative resources, even if combined, are unlikely to become sufficient substitutes over the remaining emergency timeframe.

First, relying on available demand response is inadequate because it cannot provide sufficient reactive power support.⁶ Demand response is only a load reduction measure. Both real power and reactive power are critical to maintaining system reliability, and while demand response decreases both real power demand and reactive power demand, it does not generate power. The available demand response resources are few in number, and there is no indication in the record that market incentives could substantially and rapidly increase demand response over the anticipated emergency timeframe. PJM reports that it

³ The North American Electric Reliability Corporation (NERC) Glossary, as adopted by the NERC Board of Trustees, defines "real power" as "[t]he portion of electricity that supplies energy to the Load" — that is, to customers. Glossary of Terms Used in NERC Reliability Standards (updated Oct. 6, 2017), http://www.nerc.com/files/glossary_of_terms.pdf.

⁴ The NERC Glossary defines "reactive power" as "[t]he portion of electricity that establishes and sustains the electric and magnetic fields of alternating-current equipment. Reactive Power must be supplied to most types of magnetic equipment, such as motors and transformers. It also must supply the reactive losses on transmission facilities. Reactive Power is provided by generators, synchronous condensers, or electrostatic equipment such as capacitors and directly influences electric system voltage. It is usually expressed in kilovars (kvar) or megavars (Mvar)." *Id.*

⁵ This analysis applies to both the 90-day term of Order No. 202-17-4 and the estimated remaining time for the Skiffes Creek Transmission Project. The latter is expected to take 18-20 months. Four months have passed since construction commenced.

⁶ When load is reduced, the requisite reactive power required by the system is proportionally reduced. DOE does not treat that as reactive power support akin to the ancillary services provided by Yorktown Units 1 and 2, however, because demand response merely removes the need for some reactive power support rather than actively providing it.

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has approximately 26 MW of demand response available during the 2017/2018 Planning Year, but just 0.7 MW of demand response resources are available year-round. Email from S. Pincus to R. Batra (Oct. 23, 2017), included in the docket of this Order.⁷ Additionally, Dominion reports that it has roughly 20 MW of Demand Side Management capability—specifically, remote air conditioning control, limited to a total of 120 hours and 30 days during the summer months. *Id.* Dominion also can curtail a large industrial customer by an average of 75 MW for transmission emergencies, but this curtailment is available only when the customer's load is about 99 MW, so that the reduced customer load is not more than 24 MW. *Id.* Even during the summer of 2017, the customer's load averaged 40 MW, well below the threshold for load curtailment. *Id.* Demand response is a voluntary program that even participating customers can decline to follow (at risk of contractual penalties). As such, PJM or Dominion cannot guarantee load reduction from demand response. Even if demand response were compulsory, it cannot provide reactive power benefits equivalent to generation units. For all of these reasons, reliance on demand response is not a workable solution to the reliability concerns at issue.

Second, distributed energy resources, such as rooftop solar and other behind-the-meter generation, also are insufficient to address the reliability concerns. Like demand response, behind-the-meter generation reduces the load a utility serves. But unlike demand response, distributed energy resources have the potential of adding supply to the system. This benefit is reduced, however, by two issues: (1) distributed energy resources are not assured because their availability depends on variable factors, such as solar radiation; and (2) reactive power support from distributed energy resources cannot be aggregated in a linear fashion, making its benefits too geographically constrained to be useful across the same area served by Yorktown Units 1 and 2. Distributed energy resources or behind-the-meter programs are also voluntary. Hence, customers cannot be compelled to install or use behind-the-meter generation. Current available resources are insufficient,⁸ and fundamental questions about how to fairly compensate owners likely preclude substantial shifts in this resource over the anticipated emergency timeframe.⁹ Thus, relying on

⁷ The annual availability schedule is as follows: 0.7 MW from January through April, 11 MW in May, 25.5 MW from June through September, 11 MW in October, and 0.7 MW from November to December.

⁸ PJM's forecast for distributed solar generation across the entire Dominion zone—not the smaller North Hampton Roads area—is 130MW (real power) at typical peaking conditions. Email from S. Pincus to R. Batra (Oct. 23, 2017). In weather patterns unfavorable to solar power generation, that number could drop to zero.

⁹ Earlier this year, FERC outlined the challenges in pricing sales of distributed energy back to the grid. See Policy Statement, Utilization of Electric Storage Resources for Multiple Services When Receiving Cost-Based Rate Recovery, 158 FERC ¶ 61,051 (Jan. 19, 2017). An “electric storage resource” is “a resource capable of receiving electric energy from the grid and storing it for later injection of electricity back to the grid.” *Indianapolis Power & Light Co. v. Midcontinent Indep. Sys. Operator, Inc.*, 158 FERC ¶ 61,107 at P 6 n.14 (Feb. 1, 2017). That definition “include[s] all types of electric storage technologies, regardless of their size, storage medium (e.g., batteries, flywheels, pumped-hydro), or whether located on the interstate grid or on a distribution system.” *Id.*

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variable or intermittent resources for reactive power is not a solution to reliability concerns.

Finally, rechargeable battery storage, even if technically feasible,¹⁰ is not a viable solution because it would require a substantial financial outlay for long-life equipment to address a short-term problem that could be resolved in as little as 14 months when the Skiffes Creek Transmission Project comes online. To serve as an alternative to Yorktown Units 1 and 2, PJM and Dominion would have to procure enough battery storage to be on par with those units.¹¹ Insufficient battery storage would lead to the RAS being triggered, automatically shedding 950 MW of load. Suggesting that battery storage is a workable solution, Sierra Club's expert noted three recent examples: (1) a 20 MW, four-hour battery storage system; (2) a pair of four-MWh batteries, and (3) a 100 MW rechargeable storage system. *See* Sierra Club Exhibit F at 18-19. In this case, Dominion would need to procure approximately 270 MW (net) of battery storage to replace the output of Yorktown Units 1 and 2 adequately and reliably. Doing so would come at a high cost to ratepayers without a proven benefit if the full 270 MW is not required during the anticipated emergency timeframe.

Under Sierra Club's first example, Southern California Edison (SCE) recently procured four hours of 20 MW (80MWh) energy storage from Canada's AltaGas Ltd.¹² The Pomona Energy Storage Facility, built to house the batteries and inverters, was completed in under four months and came online in December 2016.¹³ The project, with its 80 MWh of discharge capacity, cost between \$40 million and \$45 million.¹⁴ Scaling those figures up for a rough estimate, a similar storage facility capable of 270 MW (net) output for four hours could cost approximately \$540 million to \$600 million. The cost of Tesla's project in South Australia, noted by Sierra Club as its third example, is estimated to be \$576 to \$730 per kilowatt,¹⁵ which roughly equates to between \$622 million and \$788

¹⁰ Unlike demand response or behind-the-meter generation, PJM and Dominion could deploy battery storage that could be available without contingencies, and some portion of direct-current battery output could be converted for reactive power support.

¹¹ Although it would be theoretically possible to deploy a combination of the alternative resources proposed by Sierra Club such that the required amount of battery storage could be reduced, it was the Department's judgment that, due to the minimal amount of demand response and behind-the-meter resources available, modeling combination scenarios would not serve to further inform DOE's review.

¹² <https://www.altagas.ca/sites/default/files/2017-02/Pomona%20Energy%20Storage%20brochure.pdf>.

¹³ *Id.*

¹⁴ *Id.*; <http://www.reuters.com/article/idUSFWN1AX0G9>.

¹⁵ <https://www.reuters.com/article/us-australia-power-tesla/teslas-big-battery-races-to-keep-south-australias-lights-on-idUSKCN1C40DD>. The costs described in Australian dollars (\$750 to \$950) were converted to U.S. dollars in this document using a market-closing exchange rate of 0.7687 U.S. dollars to 1 Australian dollar, as reported by the Wall Street Journal on Monday, October 30, 2017. *See* http://www.wsj.com/mdc/public/page/2_3021-forex.html.

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million for the 270 MW, four-hour storage system contemplated earlier. Costs are highly variable and depend on procurement contract negotiations. But they would run into the hundreds of millions of dollars, and ratepayers would absorb a significant portion of those charges.¹⁶ The examples Sierra Club's expert mentions address different situations, as it appears the battery storage systems were purchased consistent with overall system planning goals, as opposed to the situation here that would add a costly new resource to an existing system as a short-term fix while longer-term solutions were constructed. In short, none of the examples presented is applicable to the reliability situation faced here. While battery storage has improved markedly, it is not a workable solution to the substantial reliability concerns the Department has addressed in this particular geographic area.

Using Yorktown Unit 3 to alleviate the emergency is PJM and Dominion's only remaining option, and its operating constraints prevent it from addressing the emergency. Unit 3 is oil-fired and has a maximum real output of 789 MW, but it is unreliable and can only operate at an 8 percent capacity factor (63 MW) to comply with EPA's Mercury and Air Toxics Standards (MATS). PJM Application (June 13, 2017) at 18; Email from S. Pincus to R. Batra (Oct. 23, 2017); Email from M. Regulinski to R. Batra (Nov. 2, 2017), included in the docket of this Order. Dominion has stated at least five significant reasons for its concerns about Unit 3: structural duct work and damper repairs, turbine inspections and repairs, waterbox repairs, turbine valve work and repairs, and various boiler tube leaks. *See id.* Apart from power output that is only a fraction of what Units 1 and 2 can produce, Unit 3 is so unreliable that Dominion has only operated it for 54 days in the past three (3) years. *See* Yorktown Unit 3 Days of Operation 2014-2016, included in the docket of this Order. Unit 3 is not a viable alternative due to limitations that prevent PJM from relying on that unit consistently and for an extended period of time.

Unlike the Sierra Club's proposed alternatives, either individually or in the aggregate, the Yorktown coal units can resolve the reliability emergency. They provide both real power and reactive power support, without contingencies, and at the levels required. Without the Yorktown Units, PJM cannot ensure the reliability of the grid in the North Hampton Roads area throughout the transmission upgrade schedule. For that reason, the authorization of the Yorktown Units to operate for reliability purposes only, despite being less than ideal, remains the *best available option* to meet the identified emergency.

¹⁶ For example, although SCE and Tesla did not disclose the contract price for Tesla's storage units at SCE's Mira Loma substation, SCE filed a rate case with the California Public Utilities Commission on March 30, 2017, seeking in part to recover costs of those facilities from its ratepayers. *See* Application of Southern California Edison Company (U 338-E) for Recovery of Aliso Canyon Utility Owned Energy Storage Costs (Mar. 30, 2017), [http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/FE377273FDBE2408882580F3007B32BE/\\$FILE/A1703XXX-SCE%20Application%20for%20Cost%20Recovery%20of%20ACES%20UOS.pdf](http://www3.sce.com/sscc/law/dis/dbattach5e.nsf/0/FE377273FDBE2408882580F3007B32BE/$FILE/A1703XXX-SCE%20Application%20for%20Cost%20Recovery%20of%20ACES%20UOS.pdf).

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Sierra Club's reference to the 2005 Mirant 202(c) order, for the proposition that the Department can and should require ordered entities to obtain alternative energy sources during the period of an emergency, is misplaced. Specifically, Sierra Club cites the following discussion in Order No. 202-05-3 (the Mirant Order): "DOE expects that the DCPSC, having sought an emergency order, will take such actions as are within its authority to provide adequate and reliable electric service for the Central D.C. area including, for example, expediting approval of PEPCO transmission system upgrades and instituting demand response programs." Order No. 202-05-3, at 9 (Dec. 20, 2005), https://energy.gov/sites/prod/files/oeprod/DocumentsandMedia/mirant_122005_2.pdf. However, at least two key differences distinguish the September Order from the Mirant Order. First, Dominion already has a demand response program. As explained above, Dominion's demand response program cannot ensure reliability on the North Hampton Roads power grid during a transmission outage. Second, the Mirant Order urged the D.C. Public Service Commission to "take all reasonable actions." Again as explained above, even if each of Sierra Club's alternatives were viewed as reasonable, the alternatives are inadequate to solve the reliability emergency on their own.

A determination not to order Yorktown Units 1 and 2 to operate could result in severe collateral effects—namely, load shedding across the North Hampton Roads area. Power would be shut off to thousands of customers, which could impact over half a million people.¹⁷ Because the RAS is activated when load reaches a critical threshold, whether that threshold is triggered by a transmission outage or by heightened power demand, the full load is shed immediately. That is, the shedding is not piecemeal—950 MW of power immediately go off-line upon activation of the RAS. Without sufficient backup generation, the risk of load shedding pursuant to the RAS is far greater. While the September Order is directed at avoiding the emergency presented by that loss of power, it also takes into account the Department's independent analysis of the reliability situation in the North Hampton Roads area and an evaluation of proposed alternatives.¹⁸ Without an emergency order the region may suffer heavy load shedding, and the Department has determined to protect the public interest by exercising its authority to avoid the loss of power that otherwise would result.

¹⁷ See Summary of Findings at 4 (noting that the North Hampton Roads area population exceeded 660,000 in July 2016, according to U.S. Census estimates).

¹⁸ In light of a permanent solution coming online soon, this analysis did not model all permutations of alternative resources; instead, in the Department's judgment, an examination of whether there were any realistic substitute resources during the anticipated emergency timeframe was conducted.

The Department Complied With Its Environmental Review Obligations

Sierra Club also contends that the Department did not adequately assess the impact of its Order under the National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.* NEPA requires federal agencies to consider the potential environmental impacts of their proposed actions before taking action. The regulations of the Council on Environmental Quality (CEQ) implementing NEPA, codified at 40 C.F.R. parts 1500–1508, establish three levels of review for proposed actions subject to NEPA: categorical exclusion (CX) determinations,¹⁹ environmental assessments (EA),²⁰ and environmental impact statements (EIS).²¹ In this instance, Sierra Club highlights the issuance of the September Order as the underlying action subject to NEPA review. The Department acted consistently with NEPA by issuing a CX determination, which is based on its assessment of the proposed action and determination that it fits within a category of actions previously established by the Department and found not to have a significant impact, individually or cumulatively, on the environment. *See Record of Categorical Exclusion Determination issued on September 11, 2017.*

Specifically, the proposed action fits within the CX for power marketing services and power management activities. That CX covers “[p]ower marketing services and power management activities (including, but not limited to, storage, load shaping and balancing, seasonal exchanges, and other similar activities), provided that the operations of generating projects would remain within normal operating limits.” *See* 10 C.F.R. Part 1021, Subpart D, Appendix B, B4.4.²² The September Order requires Dominion to “operate Units 1 and/or 2 of the Yorktown Power Station as directed by PJM only as needed to address reliability issues.” September Order at 2. Such operation fits squarely within the power management activities of load shaping and balancing that are included in B4.4.²³ Sierra Club does not dispute that the September Order authorizes covered power management activities. Instead, Sierra Club argues that the authorized operations would not be “within normal operating limits.” Petition at 7.

¹⁹ A CX is a category of actions that a federal agency has determined do not individually or cumulatively have a significant impact on the environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is normally required. *See* 40 C.F.R. § 1508.4.

²⁰ An EA is a relatively brief analysis conducted to determine whether a proposed action may have a significant impact on the environment and, thus, whether an EIS is required. *See id.* § 1508.9.

²¹ An EIS is a detailed analysis of the potential environmental impacts of a proposed action (and alternatives) that may have a significant impact on the environment. *See id.* § 1508.11.

²² This CX was revised during a 2011 DOE rulemaking, in part, to make clear that it applies to power management activities, including those evaluated or overseen, even if not directly undertaken, by the Department. *See* 76 Fed. Reg. 214, 227 (Jan. 3, 2011).

²³ “Balancing” was added to “load shaping” in B4.4 during the rulemaking to make clear that the CX is intended to cover load balancing which “helps ensure system reliability by managing energy resources to be equal with load.” 76 Fed. Reg. 63,764, 63,777 (Oct. 13, 2011).

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Sierra Club’s argument rests on its mistaken interpretation that “normal operating limits” refers to compliance with environmental standards, including MATS. *Id.* Rather, “normal operating limits” refers to elements of power generation capacity, not permit or other regulatory limits.

First, the Sierra Club’s interpretation fails to account for the words “would remain” that precede “within normal operating limits” in the CX. “Would remain” provides important context, demonstrating that the CX contemplates the proposed operation being evaluated against the current operation to see if the operations will be consistent, *i.e.*, “would remain within normal operating limits.” Sierra Club’s interpretation would require one to evaluate the proposed operation against other operating units, reading the words “would remain” out of the regulation. As such, Sierra Club’s interpretation of the CX is erroneous and conflicts with the regulatory text.

Second, Sierra Club offers no authority in support of its interpretation. As explained below, the CX refers to “normal operating limits,” which DOE interprets to refer to elements of power generation capacity, not permit or other regulatory limits, such as Clean Air Act emissions limits as Sierra Club contends. The text of the regulation and industry practice both amply support the Department’s interpretation of its own CX. Moreover, the Supreme Court has explained that “[w]hen an agency interprets its own regulation, the Court, as a general rule, defers to it unless that interpretation is plainly erroneous or inconsistent with the regulation.” *Decker v. Nw. Envtl. Def. Ctr.*, 568 U.S. 597, 613 (2013) (internal quotation marks omitted) (citing *Chase Bank USA, N.A. v. McCoy*, 562 U.S. 195, 208 (2011) (quoting *Auer v. Robbins*, 519 U.S. 452, 461 (1997))).

In its CX determinations for these orders, the Department interpreted the language “would remain within normal operating limits” to mean that operations would remain within normal *operational* capacities and limits. *See* CX determinations for the June and September Orders; *see also* CX Determination for Order No. 202-17-1 (Categorical Exclusion Determination, Grand River Dam Authority).²⁴ The operational capacities for Units 1 and 2 are reflected in their maximum real outputs of 159 MW and 164 MW

²⁴ The Department’s establishment of other CXs related to electrical power and transmission supports its interpretation that normal operating limits relates to operational capacity. For example, for some actions, the Department has established corollary categories of actions that typically require a CX, EA, or EIS. *See, e.g.*, the CX at B4.1, which covers certain electric power acquisitions involving “existing generation resources operating within their normal operating limits.” 10 C.F.R. Part 1021, Subpart D, Appendix B. The EA corollary for this CX is C7, which applies, in part, to “changes in the normal operating limits of generation resources equal to or less than 50 average megawatts,” and the D7 EIS corollary, which applies to “changes in the normal operating limits of generation resources greater than 50 average megawatts.” *Id.* It is clear from the focus on MWs in these provisions that the term “normal operating limits” refers to operational capacity.

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respectively, with a net output²⁵ from each unit of 135 MW. *See* PJM Application (June 13, 2017) at 5; Email from M. Regulinski to R. Batra (Sept. 5, 2017); Email from M. Regulinski to R. Batra (Oct. 27, 2017). The maximum real outputs represent the high end of the operating parameters for these units. The objective is to operate the units consistent with these outputs; such operation is consistent with the prescribed normal operating limits.²⁶ The Department's determination that the units will remain within normal operating limits is supported by the record. As evidenced by the operational data provided to date for operations under the June and September Orders, these units have remained within their maximum real output limits. *See* Renewal Application, Attachment 1; Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4 (Sept. 28, 2017), Attachments 1, 3, and 5. Pursuant to the September Order, these units will remain within their operational capacities and are expected to operate below their capacity given the restrictions provided in the September Order (*i.e.*, operate as directed by PJM only as needed to address reliability issues and exhaust all reasonably and practically available resources prior to operating). In fact, the units are anticipated to run only 81 days over the 18-20 month construction period, Answer at 10, which is 81 out of 540-600 days or 13-15% of the time.

Third, DOE's interpretation is consistent with the common understanding of the term "operating limits" in the technical community and in the context of the power generation facilities at issue. For example, NERC defines "equipment rating" to mean "[t]he maximum and minimum voltage, current, frequency, real and reactive power flows on individual equipment under steady state, short-circuit and transient conditions, as permitted or assigned by the equipment owner." *Glossary of Terms Used in NERC Reliability Standards* (updated Oct. 6, 2017), http://www.nerc.com/files/glossary_of_terms.pdf. NERC defines "normal rating" as "[t]he rating as defined by the equipment owner that specifies the level of electrical loading, usually expressed in megawatts (MW) or other appropriate units that a system, facility, or element can support or withstand through the daily demand cycles without loss of equipment life." *Id.*

In the alternative, even under Sierra Club's proffered interpretation that the phrase "normal operating limits" includes considerations beyond operational capacity, such as Clean Air Act emissions requirements, the September Order and operation of Units 1 and 2 pursuant to that Order would meet the parameters of B4.4. Sierra Club argues that the operation of these units will not be within normal operating limits because such operation would not be in compliance with MATS. *See* Petition at 7. However, as Sierra Club acknowledges, these units are proposed for deactivation because they are not, and never

²⁵ The net MW output is "the gross output of the units reduced by station auxiliary power, which is the power needed to operate the station itself and the generation units." Email from M. Regulinski to R. Batra (Oct. 27, 2017).

²⁶ While it is possible for a unit to exceed its maximum real outputs, doing so is ill-advised, as it could result in overheating, equipment damage, inefficiencies, and a shortened operational life of the unit.

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have been, in compliance with MATS. *See id.* Accepting *arguendo* Sierra Club's interpretation that the phrase "normal operating limits" under which Units 1 and 2 "would remain" refers to how the units have operated in relation to MATS compliance, then it follows that "normal operation" of these particular units is non-compliance. In other words, under this reading of the regulation, "normal operating limits" and MATS non-compliance would be co-extensive.

The MATS took effect in April 2012. *See* 77 Fed. Reg. 9304 (Feb. 16, 2012). Section 112(i)(3)(A) of the Clean Air Act allowed existing power plants three years—*i.e.*, until April 2015—to comply with MATS. *See* 42 U.S.C. § 7412(i)(3)(A). During these three years, Yorktown Units 1 and 2 were not operating in compliance with MATS. Section 112(i)(3)(B) of the Clean Air Act further allowed for a one-year extension of compliance until April 2016. *See id.* § 7412(i)(3)(B). Dominion sought and received this compliance extension from the Virginia Department of Environmental Quality (VADEQ). Thereafter, Dominion sought and received an ACO from EPA. *See* AED-CAA-113(a)-2016-0005. The ACO allowed the Yorktown Units 1 and 2 to operate, under certain conditions, through April 15, 2017. *See id.* at 8. In the five and a half years since the MATS took effect, the Yorktown units have never been equipped to comply with MATS. Nevertheless, they have operated, and for five of those years, they were operating pursuant to allowances in the Clean Air Act. The Department's Orders allow for continued conditional operation, incorporating conditions contained in EPA's ACO, consistent with how these units have operated (as relates to MATS) for years.

In addition to the applicability of the B4.4 CX, Sierra Club argues that the June Order and the September Order are major federal actions significantly affecting the environment. *See* Petition at 6. Sierra Club points to the mercury and hydrogen chloride (HCl) per-pound emissions estimates (3.3068 lbs./TBtu and 0.0478 lbs./MMBtu, respectively)²⁷ that were provided by PJM in its Renewal Application and notes that these estimated emissions exceed the MATS for these two pollutants. *See id.*; Renewal Application, Attachment 2. First, these per pound emissions estimates are based on emissions factors, and the projected monthly emissions provided by PJM are based on conservative operational assumptions and are intended to be bounding. For example, PJM's monthly emissions estimates are based on its expectations that there will be a total of 81 days over load thresholds that will necessitate operation of Units 1 and/or 2. *See* Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4 (Sept. 28, 2017), Attachment 4. The monthly emissions estimates "are based on full operating days" and conservatively assume an operating day consists of "24 hours of operation, 16 hours at low load and 8 hours at maximum load." Report on Yorktown Units 1 and 2 Operations

²⁷ PJM's per pound emissions estimates for mercury and HCl are based on emissions factors from AP-42, Fifth Edition. *See* Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-2 (Aug. 24, 2017) at 4. Mercury emissions were based on AP-42, Table 1.1-18 and HCl was based on AP-42, Table 1.1-15. *See id.*

Summary of Findings for Department of Energy Order No. 202-18-1

Pursuant to Order No. 202-17-2 (Aug. 24, 2017) at 4. Second, in order to minimize emissions, the Secretary included conditions in the September Order to minimize the impacts from operation of Yorktown Units 1 and 2. As such, there is no indication that the emissions estimated by PJM will necessarily be reached.

Moreover, DOE consulted with EPA about the September Order, and EPA had the opportunity to suggest additional conditions it determined “necessary to minimize any adverse environmental impacts to the extent practicable.” 16 U.S.C. § 824a(c)(4)(B). EPA did not suggest additional conditions or indicate concerns with DOE’s approach. *See Email from L. Starfield to P. Hoffman (Sept. 11, 2017), available at <https://energy.gov/oe/downloads/additional-documents-order-no-202-17-4>.*

Nevertheless, there is a reasonable expectation that some emissions could exceed the MATS. Yorktown Units 1 and 2 are not equipped to be MATS compliant. As all parties have acknowledged, that is the reason Dominion seeks to retire the units and why it sought and was granted compliance extensions from VADEQ and EPA, and in part, why the September Order²⁸ was requested.

After stating the per pound emissions estimates, Sierra Club then cites to PJM’s estimates for total emissions of mercury and HCl over the projected 18-20 month period and concludes, without any supporting analysis related to the operation of Units 1 and 2, that “[t]hose emissions will have a significant impact.” Petition at 6. DOE assessed the constrained operation allowed under the September Order and determined that the constraints were consistent with those previously imposed by EPA in the ACO, and that such operations would not result in significant impacts. Sierra Club cites to selective parts of EPA’s May 2011 proposed rulemaking related to National Emissions Standards for Hazardous Air Pollutants and Standards of Performance which are inapposite to the Order,²⁹ and states that mercury is hazardous even in small quantities and that HCl can cause acute and chronic health harms. *See id.* Also, as an attachment to its Petition, Sierra Club includes a 2011 EPA memorandum related to a non-Hg case study of chronic

²⁸ “[A]ction taken by a party, that is necessary to comply with an order issued under this subsection” which “results in non-compliance with . . . any Federal, State, or local environmental law or regulation . . . shall not be considered a violation . . . or subject such party to any requirement, civil or criminal liability, or a citizen suit.” 16 U.S.C. § 824a(c)(3).

²⁹ For example, Sierra Club notes a dose of .0001mg/kg-day for mercury and states that exposures above that level raise health concerns. *See* Petition at 6. This dose is the “reference dose” (RfD) for methyl mercury, which was described during the rulemaking as “the amount of a chemical which, when ingested daily over a lifetime, is anticipated to be without adverse health effects to humans, including sensitive subpopulations.” 76 Fed. Reg. 24,976, 24,982 (May 3, 2011). The rulemaking further described the RfD as “an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily exposure . . . that is likely to be without an appreciable risk of deleterious effects during a lifetime.” *Id.* at 25,000. This scenario plainly does not reflect expected exposure based on operations under the September Order. The operations of Units 1 & 2 will be limited to generation needed to meet grid reliability, and will be of a limited 18-20 month duration.

Summary of Findings for Department of Energy Order No. 202-18-1

inhalation risks that does not correlate to the emissions or potential exposures related to the September Order.³⁰ See Petition at 6; EPA Memorandum (Mar. 16, 2011) attached to Petition. Yet, Sierra Club has provided no applicable data or analysis in support of this claim, and therefore has failed to demonstrate significant impacts from the subject Order.

Finally, Sierra Club notes that CEQ has NEPA procedures that are applicable in emergency situations. See Petition at 8. The Department agrees that § 1506.11 provides that “[w]here emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these regulations, the federal agency taking the action should consult with the Council about alternative arrangements.” As explained above, the Department concluded that issuance of the September Order would not result in significant environmental impacts. Therefore, alternative arrangements and consultation were not required. In this case, the Department has chosen to proceed consistently with one of the established levels of NEPA review: issuance of a CX determination.³¹

Sierra Club concludes by stating that the extended nature of the situation provides time for DOE to conduct additional NEPA review and to inform subsequent renewals. See Petition at 9-10. As detailed above, the Department has complied with NEPA by issuing a CX determination. Nevertheless, the Department will evaluate any future renewal applications from PJM and assess the appropriate level of NEPA review based on the facts presented at that time.

Conclusion

When emergency situations arise, it is critical to have the tools to respond to them quickly, efficiently, and effectively. The Department issued the September Order because, in the Secretary’s judgment, its provisions would best meet the emergency and serve the public interest in the North Hampton Roads area. The operative interest is in keeping the lights on, allowing the PJM-mandated transmission upgrades to continue, while to the maximum extent practicable remaining consistent with environmental law and minimizing the adverse effects of power generation on human health and the environment. The September Order is tailored to accomplish those goals. Accordingly, Sierra Club’s petition for rehearing is denied.

³⁰ Sierra Club cites this inapposite study because it references the Yorktown facility. The study was actually based on 5-year concentrations for pollutants that were calculated based on information from 2005-2009, and the maximum individual risk for each facility was calculated based on “risk associated with a continuous lifetime (24 hours per day, 7 days per week, and 52 weeks per year for a 70-year period) exposure to the maximum concentration.” EPA Memorandum at 12.

³¹ Sierra Club incorporates by reference Section IV.C of its original Petition. See Petition at 8 n.5. The substantive arguments raised therein have been addressed above.

From: [Jereza, Catherine](#)
To: [Konieczny, Katherine](#); [Bittner, Kathy \(CONTR\)](#)
Cc: [Drake, Christopher](#); [Batra, Rakesh](#); [Rosenbaum, Matthew](#)
Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)
Date: Monday, November 06, 2017 3:56:48 PM

Perfect – thank you all and congrats to a job well done! I will add Kevin and change my greeting to “afternoon” since we are doing this before 4pm today ☺

Cheers
Katie

From: Konieczny, Katherine
Sent: Monday, November 06, 2017 3:51 PM
To: Bittner, Kathy (CONTR) ; Jereza, Catherine
Cc: Drake, Christopher ; Batra, Rakesh ; Rosenbaum, Matthew
Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Looks like the right one. Attached as pdf with name omitting the date/time. I also added one email address to the draft notification email below. Kevin Finto is outside counsel to Dominion and he signed Dominion's last filing.

-Kathy K

From: Bittner, Kathy (CONTR)
Sent: Monday, November 06, 2017 3:39 PM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Cc: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Sure, here it is.

From: Jereza, Catherine
Sent: Monday, November 06, 2017 3:36 PM
To: Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>
Cc: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Kathy – do you have the electronic version that includes John Lucas' edits? Can you send so we can make sure the right version goes out.

Once we have that, I'll be sending the email out below.

Thanks!

Katie

From: Jereza, Catherine
To: Steven.Pincus@pjm.com; craig.glazer@pjm.com; michael.regulinski@dominionenergy.com; sanjay.narayan@sierraclub.org; casey.roberts@sierraclub.org; bridget.lee@sierraclub.org; kfinto@hunton.com
Cc: Walker, Bruce; Hoffman, Patricia; Batra, Rakesh; Konieczny, Katherine
Subject: DOE Order 202-18-1

Good evening,

Today the Secretary of Energy issued Order No. 202-18-1. The Order and Summary of Findings are attached.

Regards,

Katie

From: Bittner, Kathy (CONTR)

Sent: Monday, November 06, 2017 3:07 PM

To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>

Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>

Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

Just wanted to make sure that you are aware that the order was signed (see attached).

Let me know if you need anything else.

Thanks,

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: kathy.bittner@hq.doe.gov

From: Bittner, Kathy (CONTR)

Sent: Friday, November 03, 2017 3:31 PM

To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>

Cc: Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>

Subject: RE: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Katie and Matt,

FYI..I took the package to Exec Sec. It has cleared Exec Sec review and is with the Deputy Secretary now.

Have a great weekend.

Kathy Bittner

Correspondence Specialist

ICF, Contractor for U.S. Department of Energy

Office of Electricity Delivery and Energy Reliability

Phone: (202) 287-5613

Email: kathy.bittner@hq.doe.gov

From: Jereza, Catherine

Sent: Friday, November 03, 2017 12:35 PM

To: Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>

Subject: FW: URGENT!! OE 202c related by 5pm Mon (2017-007724)

Hi Kathy – I'm in my office now.

Cheers

Katie

From: Jereza, Catherine
To: Steven.Pincus@pjm.com; craig.glazer@pjm.com; michael.requinski@dominionenergy.com; sanjay.narayan@sierraclub.org; casey.roberts@sierraclub.org; bridget.lee@sierraclub.org; kfinto@hunton.com
Cc: Walker, Bruce; Hoffman, Patricia; Batra, Rakesh; Konieczny, Katherine
Subject: DOE Order 202-18-1
Date: Monday, November 06, 2017 3:59:07 PM
Attachments: [Signed Order 202-18-1.pdf](#)
[Summary of Findings Order No. 202-18-1.pdf](#)

Good afternoon,

Today the Secretary of Energy issued Order No. 202-18-1. The Order and Summary of Findings are attached.

Regards,
Katie

Catherine Jereza
Deputy Assistant Secretary, Transmission Permitting & Technical Assistance
Office of Electricity Delivery & Energy Reliability
U.S. Department of Energy
(o) 202.586.0334
(c)(b) (6)

Aleisha Harris
aleisha.harris@hq.doe.gov
202.586.3876

** Please contact Aleisha for all meeting and scheduling requests. **

From: [Drake, Christopher](#)
To: [Jereza, Catherine](#)
Cc: [Batra, Rakesh](#); [Rosenbaum, Matthew](#); [Konieczny, Katherine](#)
Subject: RE: DOE Order 202-18-1
Date: Monday, November 06, 2017 4:01:00 PM

Katie,

Yes, we'll take care of it.

-----Original Message-----

From: Jereza, Catherine
Sent: Monday, November 06, 2017 4:00 PM
To: Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>
Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: RE: DOE Order 202-18-1

I guess this is a go on the website postings, etc. Can you help with that again?

-----Original Message-----

From: Konieczny, Katherine
Sent: Monday, November 06, 2017 2:00 PM
To: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: DOE Order 202-18-1
Importance: High

Hi Katie,
(b) (5)

Thanks,
Kathy

-----Original Message-----

From: Jereza, Catherine
Sent: Thursday, September 14, 2017 6:27 PM
To: Steven.Pincus@pjm.com; craig.glazer@pjm.com; michael.regulinski@dominionenergy.com; sanjay.narayan@sierraclub.org; casey.roberts@sierraclub.org; bridget.lee@sierraclub.org
Cc: Hoffman, Patricia <Pat.Hoffman@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>
Subject: DOE Order 202-17-4

Good evening,

Today the Secretary of Energy issued Order No. 202-17-4. The Order and Summary of Findings are attached.

Regards,
Katie

Catherine Jereza
Deputy Assistant Secretary, Transmission Permitting & Technical Assistance
Office of Electricity Delivery & Energy Reliability

U.S. Department of Energy

(o) 202.586.0334

(c)(b) (6)

Aleisha Harris

aleisha.harris@hq.doe.gov

202.586.3876

** Please contact Aleisha for all meeting and scheduling requests. **

From: Michael Regulinski
To: Secretary Perry; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine
Cc: Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; O'Hara, Chris; Burlew, James M.; Mohammed Alfayoumi; Mike Barner; casey.roberts@sierraclub.org; sanjay.narayan@sierraclub.org
Subject: Yorktown Units Test Run Report; DOE Order No. 202-17-4
Date: Thursday, November 09, 2017 5:39:44 PM
Attachments: [DOE Report Nov 9 2017 Yorktown Test Run.pdf](#)
[YT12 Intake Circulating Water Usage Oct 2017.xlsx](#)
[Yorktown Bi-Weekly Hourly Emissions Data 20171017-20171030.xlsx](#)

Please see attached Yorktown Test Run Report required by DOE Order No. 202-17-4. Please let me know if you have any questions. Thanks,

Michael C. Regulinski
Managing General Counsel
Dominion Energy Services, Inc.
telline: 738-2794
P: (804) 819-2794
C: (b) (6)
michael.regulinski@dominionenergy.com

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Dominion Energy Services, Inc.
Law Department
120 Tredegar Street, Richmond, VA 23218
DominionEnergy.com

November 9, 2017



The Honorable James Richard Perry
Secretary of the Energy
United States Department of Energy
1000 Independence Ave, SW
Washington, DC 20585

Re: Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4

Dear Secretary Perry:

Pursuant to Order No. 202-17-4 (the “Order”) issued on September 14, 2017, by the Secretary of Energy (“Secretary”), PJM Interconnection, L.L.C. (“PJM”) and Dominion Virginia Electric and Power Company (“Dominion Energy Virginia”) respectfully submits the attached reports regarding a test run of Yorktown Units 1 and 2 on October 25 2017 in accordance with the Secretary’s directive to “report all dates on which Yorktown Unites 1 and 2 are operated as well as the estimated emissions and water usage data associated with their operations.”¹

In the PJM application submitted June 13, 2017 (incorporated by reference in the PJM August 24 renewal application), PJM explained that emissions from the plant would occur at times outside of periods where PJM dispatches the Yorktown units for reliability.² These times include basic, periodic, and compliance related activities undertaken to ensure the units remain reliable and capable of operating when necessary. These activities are consistent with normal operating procedures and good engineering practices. These activities include operating equipment for maintenance testing and reliability check out, testing of fuel systems, tuning of units, required emissions or operational testing, and other operating procedures. Without performing these activities Dominion Energy Virginia may not be prepared to run the Yorktown Units when directed by PJM to ensure reliability.

¹ Order at page 2. The Order is for the period September 15 to December 14, and directs the emission report to be submitted every two weeks. November 9 is the end of the fourth two week period.

² PJM Application at page 13, incorporated by reference in the PJM Renewal Application at page 1.

On October 25, for approximately 5 hours Dominion Energy Virginia tested equipment on the Yorktown Units as part of a quarterly effort to ensure reliability of these two units when called upon by PJM to provide grid stability. This testing included running sub-systems and firing of ignitors and warm up burners to functionally test and verify operation for start-up. Dominion Energy Virginia did not fire the boiler for any extended period but just long enough to cycle through all the ignitors and warm up the burners. The Company tests each unit individually; the first run was the unit 1 reliability test and the second run was the unit 2 reliability test run. The two tests differed in duration due to troubleshooting of equipment issues for the start-up as well as working through some opacity issues that is commonplace when a boiler sits for a period of time and ash settles in the ductwork.

Dominion Energy Virginia does not plan on testing these units again this year but will likely test again at the beginning of 2018 depending on whether PJM dispatches the units and they operate before the end of December. If PJM dispatches the units, Dominion Energy Virginia plans on conducting these tests 2-1/2 to 3 months after the last run. For example, if PJM dispatches the units in mid-December, Dominion Energy Virginia would not test again until near the end of March, but if PJM dispatches the units in late December, January, or February the units would not test again until near the end of May.³

Attachment 1 to this report is the Yorktown Power Station Bi-weekly Emissions Data for October 17 to October 30 that shows the actual runtime and air emissions data for the period. This spreadsheet includes hourly runtime data for the equipment for the Yorktown units, and raw and calculated data showing emissions data associated with operations of the equipment. Note that the Yorktown generators did not generate any power transmitted to the grid during the test.

The information in Attachment 1 reports hourly emissions of PM-10 and SO2 in pounds per hour and pounds per million BTU, and mercury in pounds per hour and pounds per trillion BTU (Mercury and Air Toxics Standards (MATS) format) for the operating period beginning August 21 through August 23, 2017. Additionally, Attachment 1 provides hourly emissions of NOx in pounds per hour, greenhouse

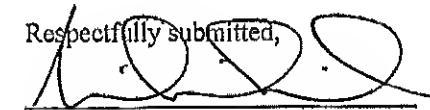
³ The later test date runs assumes, of course, that PJM submits another renewal application which is subsequently granted by the Secretary.

gases (as CO₂) in tons per hour, lead in pounds per hour, HCl in pounds per hour, HF in pounds per hour, and CO in pounds per hour. NO_x and SO₂ emissions are based on valid hours of Continuous Emissions Monitoring System (CEMS) data for the period. PM-10 emissions are based on the emission factor derived from the July 21, 2017 stack test (0.0168 lbs/mmBtu corrected to 0.1143 lbs/mmBtu calculated for PM-10 filterable plus condensable). CO₂ emissions are based on valid CEMS hours for the operating period. All other emissions were calculated using emission factors from AP-42, Fifth Edition, Volume I, Chapter 1: External Combustion Sources and calculated hourly coal consumption in tons.⁴

Attachment 2 of this report is entitled "Yorktown Power Station October 2017 Circulating Water Usage for Reliability Test." This report provides the intake circulating water usage for the Yorktown units tests.

PJM and Dominion Energy Virginia respectfully submits the information in this report be accepted by the Secretary as compliant with the Order's directives to report all dates on which Yorktown Units 1 and 2 are operated well as the estimated and actual emissions and water usage data associated with their operations.

Respectfully submitted,



Michael C. Regulinski
Managing General Counsel
Dominion Energy Services, Inc.
120 Tredegar Street, RS-2
Richmond, Virginia 23219
Phone: (804) 819-2794
Email: michael.regulinski@dominionenergy.com

⁴ Mercury and lead emissions were calculated using AP-42, Table 1.1-18. CO emissions were calculated using emission factors from AP-42, Table 1.1-3. Total HAP metals and individual HAP metals are not provided because MATS Table 2 (40 CFR 63, Subpart UUUUU) provides for compliance with either the PM limit or total non-mercury HAP metals limits or individual HAP metals. Dominion Energy Virginia is providing PM-10 emissions for the purposes of MATS. HCl and HF emissions were calculated using emission factors from AP-42, Table 1.1-15.

Steven R. Pincus
Associate General Counsel
PJM Interconnection, L.L.C.
955 Jefferson Avenue
Valley Forge Corporate Center
Norristown, PA 19403-2497
Phone: 610-666-4370
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Craig Glazer
VP, Federal Government Policy
PJM Interconnection, L.L.C.

Cc: Pat Hoffman, U.S. Department of Energy
Catherine Jereza, U.S. Department of Energy
Rakesh Batra, U.S. Department of Energy
Michael C. Regulinski, Dominion Energy Services, Inc.
Casey Roberts, Sierra Club Environmental Law Program

Yorktown Power Station October 2017 Circulating Water Usage for Re

<i>Unit</i>	<i>On-Line</i>	<i>Off-Line</i>	<i>Days On-Line</i>	<i>Start-up Notification</i>	<i>Turbine Metal Temp < 300 deg</i>
1	10/25/17 15:41	10/25/17 21:27	0.24	10/25/17 15:41	10/25/17 21:27
Million gallons of Intake Circulating Water through Unit 1					

<i>Unit</i>	<i>On-Line</i>	<i>Off-Line</i>	<i>Days On-Line</i>	<i>Start-up Notification</i>	<i>Turbine Metal Temp < 300 deg</i>
2	10/25/17 22:02	10/26/17 0:22	0.10	10/25/17 22:02	10/26/17 0:22
Million gallons of Intake Circulating Water through Unit 2					

Total million gallons through Unit 1

liability Test

<i>Total Cooling Water Days</i>	<i>Total Water Amount (Mgal)</i>
0.24	34
through Unit 1	34

<i>Total Cooling Water Days</i>	<i>Total Water Amount (Mgal)</i>
0.10	14
through Unit 2	14

& 2	48
----------------	-----------

Dominion Energy - Yorktown Power Station
 Bi-Weekly Mass Emissions
 Oct 17, 2017 through Oct 30, 2017

Date & Hour	Unit 1 Load	Unit 2 Load	(Gross MW)	(Gross MW)	Common Stack								
					Operation	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)	Mercury (lbs)
10-17-2017 00	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 01	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 02	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 03	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 04	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 05	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 06	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 07	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 08	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 09	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 10	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 11	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 12	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 13	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 14	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 15	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 16	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 17	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 18	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 19	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 20	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 21	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 22	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-17-2017 23	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 00	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 01	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 02	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 03	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 04	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 05	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 06	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 07	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 08	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 09	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 10	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0
10-18-2017 11	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0

Dominion Energy - Yorktown Power Station
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Oct 17, 2017 through Oct 30, 2017

Date & Hour	Unit 1 Load	Unit 2 Load	(Gross MW) (Gross MW)	Common Stack								Mercury (lbs)	HCl (lbs)	HF (lbs)
				Operation	Heat input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)			
10-18-2017 12	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-18-2017 13	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-18-2017 14	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-18-2017 15	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-18-2017 16	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-18-2017 17	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-18-2017 18	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-18-2017 19	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-18-2017 20	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-18-2017 21	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-18-2017 22	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-18-2017 23	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 00	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 01	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 02	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 03	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 04	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 05	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 06	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 07	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 08	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 09	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 10	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 11	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 12	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 13	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 14	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 15	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 16	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 17	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 18	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 19	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 20	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 21	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 22	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0
10-19-2017 23	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0	0	0

Dominion Energy - Yorktown Power Station
 Bi-Weekly Mass Emissions
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Systech Data	Date & Hour	Unit 1 Load	Unit 2 Load	Unit 1 Load (Gross MW)	Unit 2 Load (Gross MW)	Common Stack									
						Operation	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)	Mercury (lbs)	HCl (lbs)
	10-20-2017 00	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 01	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 02	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 03	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 04	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 05	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 06	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 07	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 08	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 09	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 10	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 11	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 12	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 13	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 14	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 15	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 16	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 17	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 18	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 19	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 20	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 21	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 22	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-20-2017 23	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 00	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 01	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 02	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 03	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 04	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 05	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 06	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 07	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 08	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 09	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 10	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
	10-21-2017 11	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00

**Dominion Energy - Yorktown Power Station
Bi-Weekly Mass Emissions
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Dominion Energy - Yorktown Power Station
 Bi-Weekly Mass Emissions
 Oct 17, 2017 through Oct 30, 2017

Date & Data	Unit 1 Load	Unit 2 Load	Gross MW	(Gross MW)	Common Stack								
					Operation	Heat Input (mmMBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)	
											Mercury (lbs)	HCl (lbs)	HF (lbs)
10-23-2017 00	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 01	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 02	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 03	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 04	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 05	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 06	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 07	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 08	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 09	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 10	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 11	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 12	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 13	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 14	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 15	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 16	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 17	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 18	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 19	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 20	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 21	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 22	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-23-2017 23	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 00	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 01	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 02	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 03	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 04	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 05	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 06	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 07	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 08	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 09	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 10	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10-24-2017 11	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00

Dominion Energy - Yorktown Power Station
 Bi-Weekly Mass Emissions
 Oct 17, 2017 through Oct 30, 2017

Data	Unit 1 Load	Unit 2 Load	(Gross MW)	Date & Hour	Common Stack											
					Operation	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)	Mercury (lbs)	HCl (lbs)	HF (lbs)	
				10-24-2017 12	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-24-2017 13	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-24-2017 14	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-24-2017 15	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-24-2017 16	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-24-2017 17	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-24-2017 18	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-24-2017 19	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-24-2017 20	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-24-2017 21	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-24-2017 22	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-24-2017 23	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 00	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 01	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 02	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 03	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 04	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 05	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 06	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 07	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 08	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 09	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 10	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 11	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 12	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	0.0	
				10-25-2017 13	0	0.20	2.0	0.0	0.1	0.2	0.08	0.233172	5.77E-06	6.75E-06	0.09753	0.012191
				10-25-2017 14	0	1.00	10.6	0.0	0.6	1.1	0.42	1.21158	3E-05	3.51E-05	0.506773	0.063347
				10-25-2017 15	0	1.00	11.0	0.0	0.3	1.1	0.44	1.2573	3.11E-05	3.64E-05	0.525896	0.065737
				10-25-2017 16	0	0.93	21.8	0.1	0.3	2.2	0.87	2.487397	6.16E-05	7.2E-05	1.040414	0.130052
				10-25-2017 17	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0	0	0	
				10-25-2017 18	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0	0	0	
				10-25-2017 19	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0	0	0	
				10-25-2017 20	0	0.93	21.8	0.1	0.3	2.2	0.87	2.487397	6.16E-05	7.2E-05	1.040414	0.130052
				10-25-2017 21	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0	0	0	
				10-25-2017 22	0	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0	0	0	
				10-25-2017 23	0	0.50	11.4	0.1	0.1	1.2	0.45	1.297305	3.21E-05	3.75E-05	0.542629	0.067829

Dominion Energy - Yorktown Power Station
Bi-Weekly Mass Emissions
Oct 17, 2017 through Oct 30, 2017

S/N Date	Date	Unit 1 Load	Unit 2 Load	(Gross MW)	(Gross MW)	Common Stack						
						Operation (xx,xx,Hour)	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)
10-26-2017	00	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	01	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	02	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	03	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	04	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	05	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	06	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	07	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	08	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	09	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	10	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	11	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	12	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	13	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	14	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	15	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	16	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	17	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	18	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	19	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	20	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	21	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	22	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-26-2017	23	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	00	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	01	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	02	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	03	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	04	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	05	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	06	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	07	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	08	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	09	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	10	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10-27-2017	11	0	0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.00

Dominion Energy - Yorktown Power Station
 Bi-Weekly Mass Emissions
 Oct 17, 2017 through Oct 30, 2017

Data	Date & Hour	Unit 1 Load (Gross MW)	Unit 2 Load (Gross MW)	Common Stack								
				Operation [x,xx Hour]	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)	Mercury (lbs)
	10-27-2017 12	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-27-2017 13	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-27-2017 14	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-27-2017 15	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-27-2017 16	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-27-2017 17	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-27-2017 18	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-27-2017 19	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-27-2017 20	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-27-2017 21	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-27-2017 22	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-27-2017 23	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 00	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 01	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 02	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 03	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 04	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 05	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 06	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 07	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 08	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 09	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 10	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 11	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 12	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 13	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 14	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 15	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 16	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 17	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 18	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 19	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 20	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 21	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 22	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0
	10-28-2017 23	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00	0.0	0.0

Dominion Energy - Yorktown Power Station

Eti-Weekly Issues Episodes

THE JOURNAL OF CLIMATE

Substance	Unit 1 Load	Unit 2 Load	Date & Hour	(Gross MW)	Common Stack						
					Operation	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)
			10-29-2017 00	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 01	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 02	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 03	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 04	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 05	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 06	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 07	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 08	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 09	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 10	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 11	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 12	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 13	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 14	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 15	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 16	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 17	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 18	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 19	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 20	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 21	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 22	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-29-2017 23	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 00	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 01	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 02	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 03	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 04	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 05	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 06	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 07	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 08	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 09	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 10	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00
			10-30-2017 11	0	0.00	0.0	0.0	0.0	0.0	0.0	0.00

Dominion Energy - Yorktown Power Station
Bi-Weekly Mass Emissions
Oct 17, 2017 through Oct 30, 2017

S#	Date	Unit 1 Load	Unit 2 Load	(Gross MW)	(Gross MW)	Common Stack									
						Operation (xx Hour)	Heat Input (mmBtu)	NOx (lbs)	SO2 (lbs)	CO2 (Tons)	Coal (Tons)	PM10 (lbs)	Lead (lbs)	Mercury (lbs)	HCl (lbs)
10-30-2017	12	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
10-30-2017	13	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
10-30-2017	14	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
10-30-2017	15	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
10-30-2017	16	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
10-30-2017	17	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
10-30-2017	18	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
10-30-2017	19	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
10-30-2017	20	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
10-30-2017	21	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
10-30-2017	22	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
10-30-2017	23	0	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0	0	0
Bi-Weekly Total Tons				56.8	0.0	0.0	5.8	2.26	0.003243	8.03E-08	9.38E-08	0.001357	0.00017		
				mmBtu											

Note:

All data are collected and processed in accordance with Part 75.

Data with orange fill are substituted in accordance with Part 75.

Monthly sums may not agree with data published by EPA due to the handling of quarterly and annual totals.

From: [Bittner, Kathy \(CONTR\)](#)
To: [Batra, Rakesh](#)
Cc: [Jereza, Catherine](#)
Subject: 2017-008571 - Yorktown Run Test Run Report (Order 202-17-4)
Date: Tuesday, November 14, 2017 1:21:35 PM
Attachments: [2017-008571 - Incoming.pdf](#)

Hi Rakesh and Katie,

I believe that you both have received this, but wanted to send it just in case.

From a correspondence perspective, no further action is required.

Thanks,

Kathy Bittner
Correspondence Specialist
ICF, Contractor for U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability
Phone: (202) 287-5613
Email: kathy.bittner@hq.doe.gov

Stanton, Kimberly (CONTR)

From: Michael Regulinski <michael.regulinski@dominionenergy.com>
Sent: Thursday, November 09, 2017 5:39 PM
To: Secretary Perry; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine
Cc: Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tarn, Simon K.; Glazer, Craig; O'Hara, Chris; Burlew, James M.; Mohammed Alfayyoumi; Mike Barmer; casey.roberts@sierraclub.org; sanjay.narayan@sierraclub.org
Subject: Yorktown Units Test Run Report; DOE Order No. 202-17-4
Attachments: DOE Report Nov 9 2017 Yorktown Test Run.pdf; YT12 Intake Circulating Water Usage_Oct 2017.xlsx; Yorktown Bi-Weekly Hourly Emissions Data 20171017-20171030.xlsx

Please see attached Yorktown Test Run Report required by DOE Order No. 202-17-4. Please let me know if you have any questions. Thanks,

Michael C. Regulinski
Managing General Counsel

Dominion Energy Services, Inc.
telline: 738-2794
P: (804) 819-2794
C: (b) (6)
michael.regulinski@dominionenergy.com

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From: Konieczny, Katherine
To: Batra, Rakesh
Subject: RE: DOE Informal Question
Date: Tuesday, November 21, 2017 11:18:18 AM

Thanks, Rakesh! Happy Thanksgiving!

From: Batra, Rakesh
Sent: Tuesday, November 21, 2017 10:48 AM
To: Michael Regulinski ; Pincus, Steven ; Sharon L. Burr ; Miranda R Yost ; Rick R Linker ; Mike Barmer ; Mohammed Alfayoumi
Cc: Konieczny, Katherine ; Drake, Christopher
Subject: DOE Informal Question
(b) (5)

Order No. 202-17-4 was issued on September 14, 2017. By its own terms and by statute, it expires on December 13, 2017. Ordering paragraph D. states that "[i]f the conditions creating the emergency remain substantially unchanged, a renewal request should be submitted at least 14 calendar days before this Order expires." (b) (5)

Thanks,
Rakesh Batra
202-586-1283

From: Pincus, Steven
To: Batra, Rakesh; Michael Regulinski; Sharon L. Burr; Miranda R Yost; Rick R Linker; Mike Barmer; Mohammed Alfayyoumi; Konieczny, Katherine; Tam, Simon K.; Bryson, Mike E.; Souder, David W.; Glazer, Craig
Cc: Drake, Christopher; O'Hara, Chris; Mars, Jennifer A.
Subject: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions
Date: Tuesday, November 21, 2017 2:57:06 PM

(b) (5)

Thank you and Happy Thanksgiving.

Steven R. Pincus

Associate General Counsel, Office of General Counsel

(610) 666-4370 | C: (b) (6) | Steven.Pincus@pjm.com

PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403

This e-mail message and any attached files are confidential and are solely for the use of the intended recipient.

From: Batra, Rakesh [mailto:Rakesh.Batra@Hq.Doe.Gov]
Sent: Tuesday, November 21, 2017 10:48 AM
To: Michael Regulinski; Pincus, Steven; Sharon L. Burr; Miranda R Yost; Rick R Linker; Mike Barmer; Mohammed Alfayyoumi
Cc: Konieczny, Katherine; Drake, Christopher
Subject: DOE Informal Question

External Email! Think before clicking links or attachments.

(b) (5)

Order No. 202-17-4 was issued on September 14, 2017. By its own terms and by statute, it expires on December 13, 2017. Ordering paragraph D. states that "[i]f the conditions creating the emergency remain substantially unchanged, a renewal request should be submitted at least 14 calendar days before this Order expires." (b) (5)

Thanks,
Rakesh Batra
202-586-1283

From: Pincus, Steven
To: Konieczny, Katherine; Batra, Rakesh; Michael Regulinski; Sharon L. Burr; Miranda R Yost; Rick R Linker; Mike Barmer; Mohammed Alfayoumi; Tam, Simon K.; Bryson, Mike E.; Souder, David W.; Glazer, Craig
Cc: Drake, Christopher; O'Hara, Chris; Mars, Jennifer A.; Rosenbaum, Matthew; Mills, Brian
Subject: RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions
Date: Wednesday, November 22, 2017 1:13:52 PM

We will try to reschedule for Tuesday.

From: Konieczny, Katherine [mailto:Katherine.Konieczny@Hq.Doe.Gov]
Sent: Wednesday, November 22, 2017 1:06 PM
To: Pincus, Steven; Batra, Rakesh; Michael Regulinski; Sharon L. Burr; Miranda R Yost; Rick R Linker; Mike Barmer; Mohammed Alfayoumi; Tam, Simon K.; Bryson, Mike E.; Souder, David W.; Glazer, Craig
Cc: Drake, Christopher; O'Hara, Chris; Mars, Jennifer A.; Rosenbaum, Matthew; Mills, Brian
Subject: RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

External Email! Think before clicking links or attachments.

It appears that none of the DOE program folks is available at 5pm Monday. Can the call be moved earlier in the day? Tuesday 11/28 is preferred.

From: Pincus, Steven [mailto:Steven.Pincus@pjm.com]
Sent: Wednesday, November 22, 2017 1:00 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Michael Regulinski <michael.regulinski@dominionenergy.com>; Sharon L. Burr <sharon.l.burr@dominionenergy.com>; Miranda R Yost <Miranda.R.Yost@dominionenergy.com>; Rick R Linker <rick.r.linker@dominionenergy.com>; Mike Barmer <mike.barmer@dominionenergy.com>; Mohammed Alfayoumi <mohammed.alfayoumi@dominionenergy.com>; Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Tam, Simon K. <Simon.Tam@pjm.com>; Bryson, Mike E. <Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Glazer, Craig <Craig.Glazer@pjm.com>
Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; O'Hara, Chris <Chris.OHara@pjm.com>; Mars, Jennifer A. <Jennifer.Mars@pjm.com>; Mills, Brian <Brian.Mills@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>
Subject: RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

The call is scheduled for Monday at 5:00. The call in numbers is included in the Outlook meeting invitation which you all should have received by now. If you need the numbers resent please let us know. Thank you. Steve

From: Batra, Rakesh [mailto:Rakesh.Batra@Hq.Doe.Gov]
Sent: Wednesday, November 22, 2017 12:57 PM
To: Michael Regulinski; Pincus, Steven; Sharon L. Burr; Miranda R Yost; Rick R Linker; Mike Barmer; Mohammed Alfayoumi; Konieczny, Katherine; Tam, Simon K.; Bryson, Mike E.; Souder, David W.; Glazer, Craig
Cc: Drake, Christopher; O'Hara, Chris; Mars, Jennifer A.; Mills, Brian; Rosenbaum, Matthew
Subject: RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

External Email! Think before clicking links or attachments.

I guess Mr. Pincus didn't send out the call number. (b) (6)
Rakesh

From: Michael Regulinski [<mailto:michael.regulinski@dominionenergy.com>]
Sent: Tuesday, November 21, 2017 5:07 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Pincus, Steven <Steven.Pincus@pjm.com>; Sharon L. Burr <sharon.l.burr@dominionenergy.com>; Miranda R Yost <Miranda.R.Yost@dominionenergy.com>; Rick R Linker <rick.r.linker@dominionenergy.com>; Mike Barmer <mike.barmer@dominionenergy.com>; Mohammed Alfayyoumi <mohammed.alfayyoumi@dominionenergy.com>; Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Tam, Simon K. <Simon.Tam@pjm.com>; Bryson, Mike E. <Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Glazer, Craig <Craig.Glazer@pjm.com>
Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; O'Hara, Chris <Chris.OHara@pjm.com>; Mars, Jennifer A. <Jennifer.Mars@pjm.com>; Mills, Brian <Brian.Mills@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>

Subject: RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

I am available for a call tomorrow 11-12 EST. Please send a call in number. Thanks, Mike

Michael C. Regulinski

Managing General Counsel

Dominion Energy Services, Inc.

telline: 738-2794

P: (804) 819-2794

C: (b) (6)

michael.regulinski@dominionenergy.com

From: Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]
Sent: Tuesday, November 21, 2017 3:12 PM
To: Pincus, Steven; Michael Regulinski (Services - 6); Sharon L. Burr (Services - 6); Miranda R Yost (Services - 6); Rick R Linker (Services - 6); Mike Barmer (VirginiaPower - 1T); Mohammed Alfayyoumi (VirginiaPower - 1T); Konieczny, Katherine; Tam, Simon K.; Bryson, Mike E.; Souder, David W.; Glazer, Craig
Cc: Drake, Christopher; O'Hara, Chris; Mars, Jennifer A.; Mills, Brian; Rosenbaum, Matthew
Subject: [External] RE: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions

I am available tomorrow morning before noon. Not available on Monday. Next availability is Tuesday, Nov 28, any time except 10-11am.

Rakesh

From: Pincus, Steven [<mailto:Steven.Pincus@pjm.com>]
Sent: Tuesday, November 21, 2017 2:57 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>; Michael Regulinski <michael.regulinski@dominionenergy.com>; Sharon L. Burr <sharon.l.burr@dominionenergy.com>; Miranda R Yost <Miranda.R.Yost@dominionenergy.com>; Rick R Linker <rick.r.linker@dominionenergy.com>; Mike Barmer <mike.barmer@dominionenergy.com>; Mohammed Alfayyoumi <mohammed.alfayyoumi@dominionenergy.com>; Konieczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Tam, Simon K. <Simon.Tam@pjm.com>; Bryson, Mike E. <Michael.Bryson@pjm.com>; Souder, David W. <David.Souder@pjm.com>; Glazer, Craig <Craig.Glazer@pjm.com>
Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>; O'Hara, Chris

<Chris.OHara@pjm.com>; Mars, Jennifer A. <Jennifer.Mars@pjm.com>

Subject: PJM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal

Application Questions

PJM would like to schedule a conference with DOE staff and Dominion to discuss technical questions on the renewal application due next week. Please send my assistant Jenny Mars your availability for a call tomorrow afternoon or Monday.

Thank you and Happy Thanksgiving.

Steven R. Pincus

Associate General Counsel, Office of General Counsel

(610) 666-4370 | C:(b)(6) | Steven.Pincus@pjm.com

PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403

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From: Batra, Rakesh [<mailto:Rakesh.Batra@Hq.Doe.Gov>]

Sent: Tuesday, November 21, 2017 10:48 AM

To: Michael Regulinski; Pincus, Steven; Sharon L. Burr; Miranda R Yost; Rick R Linker; Mike Barmer;

Mohammed Alfayyoumi

Cc: Konieczny, Katherine; Drake, Christopher

Subject: DOE informal Question

External Email! Think before clicking links or attachments.

In preparations for renewal of Order No. 202-17-4, which expires in mid-December, now that PJM and/or Dominion will have enough data to answer the following question, we would like you to provide DOE a spreadsheet that reflects historical operations and emissions data for Units 1 and 2 for the years 2015-2017. Please provide the same categories of information (run time, MW, emissions, etc.) and in the same format used in Attachment 3 of the September Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-4.

Order No. 202-17-4 was issued on September 14, 2017. By its own terms and by statute, it expires on **December 13, 2017**. Ordering paragraph D. states that "[i]f the conditions creating the emergency remain substantially unchanged, a renewal request should be submitted at least 14 calendar days before this Order expires." (b) (5)

PJM's renewal request would therefore be due no later than **Wednesday, November 29**.

Thanks,

Rakesh Batra

202-586-1283

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transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.

From: Pincus, Steven
To: Glazer, Craig; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; michael.regulinski@dominionenergy.com; sharon.l.burr@dominionenergy.com; Konieczny, Katherine; Drake, Christopher; Mills, Brian; Rosenbaum, Matthew; Batra, Rakesh
Subject: RE: JM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions
Date: Monday, November 27, 2017 10:53:57 AM

DOE Representatives: (b) (5)

Thank you. Steve

-----Original Appointment-----

From: O'Hara, Chris

Sent: Wednesday, November 22, 2017 10:32 AM

To: O'Hara, Chris; Glazer, Craig; Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Egan, David M.; michael.regulinski@dominionenergy.com; sharon.l.burr@dominionenergy.com; Miranda.R.Yost@dominionenergy.com; mohammed.alfayyoumi@dominionenergy.com; mike.barmer@dominionenergy.com; rick.r.linker@dominionenergy.com;

Katherine.Konieczny@Hq.Doe.Gov; Christopher.Drake@hq.doe.gov; Brian.Mills@hq.doe.gov;

Matthew.Rosenbaum@hq.doe.gov; 'Rakesh.Batra@Hq.Doe.Gov'

Subject: JM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application

Questions

When: Monday, November 27, 2017 5:00 PM-6:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Conference Call

Participants: (b) (6)

Meeting Access ID: (b) (6)

AUTO DIAL WITH PASSCODE: (b) (6)

Jenny

From: Konieczny, Katherine
To: Pincus, Steven; Drake, Christopher; Mills, Brian; Rosenbaum, Matthew; Batra, Rakesh
Subject: RE: JM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application Questions
Date: Monday, November 27, 2017 10:55:48 AM

(b) (6), (b) (5)

From: Pincus, Steven [mailto:Steven.Pincus@pjm.com]
Sent: Monday, November 27, 2017 10:54 AM
To: Glazer, Craig ; Bryson, Mike E. ; Souder, David W. ; Tam, Simon K. ;
michael.regulinski@dominionenergy.com; sharon.l.burr@dominionenergy.com; Konieczny,
Katherine ; Drake, Christopher ; Mills, Brian ; Rosenbaum, Matthew ; Batra, Rakesh
Subject: RE: JM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application
Questions
DOE Representatives: (b) (5)

Thank you. Steve

-----Original Appointment-----

From: O'Hara, Chris
Sent: Wednesday, November 22, 2017 10:32 AM
To: O'Hara, Chris; Glazer, Craig; Pincus, Steven; Bryson, Mike E.; Souder, David W.; Tam, Simon K.;
Egan, David M.; michael.regulinski@dominionenergy.com; sharon.l.burr@dominionenergy.com;
Miranda.R.Yost@dominionenergy.com; mohammed.alfayoumi@dominionenergy.com;
mike.barner@dominionenergy.com; rick.r.linker@dominionenergy.com;
Katherine.Konieczny@hq.doe.gov; Christopher.Drake@hq.doe.gov; Brian.Mills@hq.doe.gov;
Matthew.Rosenbaum@hq.doe.gov; Rakesh.Batra@Hq.Doe.Gov'
Subject: JM/Dominion Yorktown Units 1 and 2 FPA 202(c) Emergency Order Renewal Application
Questions
When: Monday, November 27, 2017 5:00 PM-6:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Conference Call
Participants: (b) (6)
Meeting Access ID: (b) (6)
AUTO DIAL WITH PASSCODE: (b) (6)
Jenny

From: Pincus, Steven
To: Secretary Perry; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine
Cc: Michael Requlinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; O'Hara, Chris; Michael Requlinski (Services - 6); casey.roberts@sierraclub.org; Robinson, Evelyn
Subject: Order No. 202-17-4 Renewal Application Filing
Date: Wednesday, November 29, 2017 4:13:01 PM
Attachments: DOE Order 202-17-4 PJM Renewal Application Letter 11-29-17.pdf

Dear Secretary Perry:

PJM respectfully submits for filing a ninety (90) day Renewal Application in accordance with Section 202(c) of the Federal Power Act, the Department of Energy's Rules of Practice and Procedure and Order No. 202-17-4.

Please contact me if you have any questions.

Thank you for your consideration.

Respectfully,

Steven R. Pincus

Associate General Counsel, Office of General Counsel

(610) 666-4370 | C: (b) (6) | Steven.Pincus@pjm.com

PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403



PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403

Steven R. Pincus
Associate General Counsel
T: (610) 666-4438 | F: (610) 666-8211
steven.pincus@pjm.com

November 29, 2017

The Honorable James Richard Perry
Secretary of the Energy
United States Department of Energy
1000 Independence Ave, SW
Washington, DC 20585

Re: Order No. 202-17-4 Renewal Application Filing

Dear Secretary Perry:

Pursuant to Section 202(c) of the Federal Power Act (“FPA”),¹ Section 301(b) of the Department of Energy Organization Act,² the Department of Energy’s (“DOE”) Rules of Practice and Procedure³ and Order No. 202-17-4 issued on September 14, 2017 by the Secretary of Energy (“Secretary”) (the “September 14 Order”), PJM Interconnection, L.L.C. (“PJM”) respectfully submits a request for a 90-day renewal of the September 14 Order. PJM incorporates by reference PJM’s application submitted on June 13, 2017 (the “June 13 Application”) and all attachments and appendices thereto, and PJM’s August 24, 2017 renewal application (the “August 24 Application”) and all attachments and appendices thereto. PJM also incorporates by reference the various reports to DOE concerning the operations and emission data provided by PJM and Virginia Electric and Power Company (“Dominion Energy Virginia”) referenced below.

¹ 16 U.S.C. § 824a(c).

² 42 U.S.C. §§ 7101 and 7151(b).

³ 16 C.F.R. §§ 205.370, 205.371 and 205.372 and 205.373.

Background

In the June 13 Application, PJM stated the need to request renewals of the Order No. 202-17-2 issued on June 16, 2017 (the “June 16 Order”) on a rolling basis until the PJM ordered Regional Transmission Expansion Planning Process (“RTEPP”) Skiffes Creek Transmission Project is placed into service, which was at that time anticipated to be completed in 18-20 months once all permits are issued.⁴ In the June 16 Order, the Secretary determined “that an emergency exists in the Commonwealth of Virginia due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, and other causes, and that issuance of this Order will meet the emergency and serve the public interest.”⁵ In doing so, the Secretary directed Dominion Energy Virginia to operate Yorktown Units 1 and 2 as directed by PJM as needed to address reliability issues for the initial 90-day period, June 16, 2017 to September 14, 2017, or any renewal thereof.⁶ The Secretary also directed PJM and Dominion Energy Virginia to develop and implement a dispatch methodology and submit it to the DOE upon implementation.⁷ The dispatch methodology was submitted by PJM on June 27, 2017.

In the August 24 Application, PJM submitted a request for a 90 day renewal of the June 16 Order. PJM requested an order of the Secretary under Section 202 (c) of the FPA which provides among other things that an emergency continues to exist in the Commonwealth of Virginia due to a shortage of electric energy, a shortage of facilities for the generation of electric

⁴ On October 12, 2017, PJM and Dominion Energy Virginia submitted a report updating the outage schedule for the Skiffes Creek Transmission Project with an extension of the construction schedule of approximately five and one-half months from December 30, 2018 to May 12, 2019.

⁵ June 16 Order page 1.

⁶ June 16 Order page 2.

⁷ June 16 Order page 2.

energy, and other causes, and that issuance of a renewal order (*i.e.* the September 14 Order) will meet the emergency and serve the public interest for another 90 renewal period (*i.e.* from September 14, 2017 to December 13, 2017).

In the September 14 Order, the Secretary determined “that an emergency continues to exist in the North Hampton Roads area of Virginia due to a shortage of electric energy and a shortage of facilities for the generation and transmission of electric energy.”⁸ The Secretary granted PJM’s August 24 Application allowing operation of Yorktown Units 1 and 2, with certain modifications, for an additional 90-day period to expire on December 13, 2017.⁹ The Secretary’s directives required PJM and Dominion to “exhaust all reasonably and practically available resources, including demand response and behind-the-meter generation resources, prior to operating Yorktown Unit 1 and Yorktown Unit 2” consistent with “good utility practices” and in compliance with the dispatch methodology.¹⁰

⁸ September 14 Order page 1

⁹ September 14 Order page 1

¹⁰ September 14 Order page 2, paragraphs A and B. PJM has a detailed registration process as applied to demand response resources which are serving as capacity resources. PJM would utilize that information in applying this provision recognizing that: (i) the amount of registered demand response resources on the peninsula is limited; and (ii) during the renewal period covered by this application, certain demand response resources are available to PJM only in the summer period during the period. PJM has catalogued behind the meter resources based on data provided by the United States Energy Information Administration (“EIA”), Dominion and other sources. Although behind the meter resources are not subject to PJM’s direction, PJM works with Dominion to seek their assistance pursuant to the existing dispatch methodology. However, the DOE’s directive that PJM and Dominion Energy Virginia exhaust reasonably and practically available demand response and/or behind-the-meter resources applies only if exhausting such resources would lessen the need to operate the Yorktown Units 1 and/or 2 for reliability of the grid consistent with the dispatch methodology, PJM’s Governing Agreements and good utility practices. For example, if demand response and/or behind-the-meter resources would not provide needed reactive support, or otherwise not lessen the need to operate the Yorktown units for reliability, such resources would not be “reasonably and practically available” and operating the resources would not be consistent with the dispatch methodology, PJM’s Governing Agreements and good utility practices.

The September 14 Order directed PJM and Dominion Energy Virginia to report every two weeks during the term of the September 14 Order all dates on which Yorktown Units 1 and/or 2 are operated and associated air emissions and water usages for those dates.¹¹ The Secretary also directed reporting in the event the outage schedule or estimates changes from those presented in the August 24 Application. PJM and Dominion Energy Virginia submitted reports on September 28, 2017, August 22, 2017 and November 10, 2017, on the operation of Yorktown Units 1 and/or 2, and a report on October 12, 2017 revising the Skiffs Creek Transmission Project construction schedule and providing associated emission estimates.

The September 14 Order stated that “(i)f the conditions creating the emergency remain substantially unchanged, a renewal request should be submitted at least 14 calendar days before (the September 14 Order) expires.”¹² As conditions creating the emergency remain substantially unchanged, this renewal application is due on November 29, 2017.

Renewal Request

As stated in the June 13 Application as revised by the August 24 Application, the Skiffes Creek Transmission Project was expected to be completed and placed into service approximately 18-20 months after receipt of all applicable permits. With issuance of the U.S. Army Corps of Engineers’ (“Army Corps”) permit on July 3, 2017, Dominion Energy Virginia started construction of the Skiffes Creek project on July 10, 2017. As reported on October 12, 2017, the Skiffs Creek Transmission Project is scheduled to be completed May 12, 2019. Thus, given the continued extended nature of the emergency, PJM respectfully submits that the emergency as set

¹¹ September 14 Order page 2, paragraph C.

¹² September 14 Order page 2, paragraph D.

forth in the June 13 Application and August 24 Application and as determined by the Secretary in the June 16 Order and September 14 continues to exist.

Therefore, PJM respectfully requests that the Secretary grant this renewal application and order the continued operation of Yorktown Units 1 and 2 to alleviate the emergency described in the June 13 Application, the August 24 Application and hereinabove prior to the expiration of the current order (*i.e.* December 13, 2017) under Section 202 (c) of the FPA. PJM request the requested renewal order provide as follows:

- (i) that an emergency continues to exist in the North Hampton Roads area of Virginia due to a shortage of electric energy and a shortage of facilities for the generation and transmission of electric energy and that issuance of a renewal Order will meet the emergency and serve the public interest;
- (ii) from December 13, 2017 to March 13, 2018, Dominion Energy Virginia is directed to operate Yorktown Units 1 and 2 as directed by PJM as needed to maintain grid reliability or for other local area transmission issues;
- (iii) the limitations on operations ensure, to the maximum extent practicable, consistency with applicable laws and regulations, and the reporting requirements for operations and estimated emissions ensure transparency of implementation;
- (iv) consistent with the dispatch methodology submitted by PJM on June 27, 2017, good utility practice and the PJM Tariff, PJM and Dominion Energy Virginia shall exhaust all reasonably and practically available resources including demand response and identified behind-the-meter generation resources to the extent that

such resources address maintenance of grid reliability, prior to operating Yorktown Units 1 and/or 2;¹³

- (v) Dominion Energy Virginia shall continue to follow the dispatch methodology submitted by PJM on June 27, 2017;
- (vi) PJM and Dominion Energy Virginia shall report all dates on which Yorktown Units 1 and/or 2 are operated as well as the estimated emissions and water usage date for those dates within ten (10) business days of such operation; and
- (vii) in the event that the outage schedule or estimates change from those presented in this renewal application, within ten (10) business days PJM and Dominion Energy Virginia shall also provide updated outages schedules and associated Yorktown Units 1 and 2 emission estimates.

Respectfully submitted,



Steven R. Pincus
Associate General Counsel
PJM Interconnection, L.L.C.

Craig Glazer
VP, Federal Government Policy
PJM Interconnection, L.L.C.

Cc (via electronic mail): Pat Hoffman, U.S. Department of Energy
Catherine Jereza, U.S. Department of Energy
Rakesh Batra, U.S. Department of Energy
Michael C. Regulinski, Dominion Energy Services, Inc.
Casey Roberts, Sierra Club Environmental Law Program

¹³ See Footnote 10.

From: Jereza, Catherine
To: Batra, Rakesh; Brian Mills; Rosenbaum, Matthew
Subject: FW: OE 202c related by Wed 12/13
Date: Monday, December 11, 2017 7:08:15 PM
Attachments: Order 202-18-2 as of 12-11.docx
Order 202-18-2 Summary of Findings 12-11.docx

Do we?

From: Konieczny, Katherine <Katherine.Konieczny@HQ.DOE.GOV>
Date: Monday, Dec 11, 2017, 1:40 PM
To: Jereza, Catherine <Catherine.Jereza@HQ.DOE.GOV>; Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>
Cc: Drake, Christopher <Christopher.Drake@hq.doe.gov>
Subject: RE: OE 202c related by Wed 12/13

(b) (5)

-----Original Message-----

From: Jereza, Catherine
Sent: Monday, December 11, 2017 7:48 AM
To: Lucas, John T. ; Dannenfelser, Marty ; Doone, Alison ; Lorraine, Jennifer A. ; Turenne, William ; Haus, Bob ; Menezes, Mark
Cc: GC Concurrence Actions ; Faith, Jayne ; Habausky, Sarah ; Herron, Vernon ; Cunningham, Derrick ; Swisher, Vivian P. (CONTR) ; Hoffman, Patricia ; Walker, Bruce ; Mills, Brian ; Smith, Julie A (OE) ; Rosenbaum, Matthew ; Batra, Rakesh ; Konieczny, Katherine ; Fibbe, George ; Lawrence, Shamika ; Bittner, Kathy (CONTR) ; Fisher, Travis
Subject: OE 202c related by Wed 12/13

(b) (5)

BACKGROUND: Order No. 202-17-4, the Federal Power Act section 202(c) emergency order in effect for PJM and Dominion, ensures reliability in the North Hampton Roads area of Virginia, but it expires on December 13. PJM has requested another 90-day order. By statute, these orders are limited to 90 days in duration, and PJM expects it will need consecutive 202(c) orders through May 2019. In the renewal order, the Department of Energy repeats most of the terms of the current order, mainly requiring that PJM direct the operation of two coal-fired generation units owned by Dominion as needed to address reliability issues. The purpose is to avoid load shedding in the impacted area, which could extend to 150,000 customers including critical infrastructure facilities. This renewal order cross-references a Summary of Findings explaining both the rationale for and legality of the decision to renew Order No. 202-17-4 for another 90 days.

RECOMMENDATION: (b) (5)

Thank you!
Katie

Catherine Jereza
Deputy Assistant Secretary, Transmission Permitting & Technical Assistance
Office of Electricity Delivery & Energy Reliability
U.S. Department of Energy
(o) 202.586.0334
(c)(b) (6)

Shamika Lawrence
Shamika.Lawrence@hq.doe.gov
202.586.4666

** Please contact Shamika for all meeting and scheduling requests. **

From: [Drake, Christopher](#)
To: [Fickel, Louise](#); [Batra, Rakesh](#)
Cc: [Konieczny, Katherine](#); [Mills, Brian](#); [Rosenbaum, Matthew](#)
Subject: RE: PJM OE 202c related
Date: Thursday, December 14, 2017 1:40:33 PM

Three of the documents Rakesh sent (CX, Order 202-18-2, and the Summary of Findings) are in addition to what I sent you earlier today. The fourth document is the same Renewal Application that you posted two weeks ago. Thank you for checking!

Chris Drake
Attorney-Adviser
U.S. Department of Energy, Office of General Counsel
Office of Electricity & Fossil Energy (GC-76)
Forrestal North, Room 6B-256
Tel. 202.586.2919
Christopher.Drake@hq.doe.gov

This communication may contain privileged or confidential material. Potential privileges include, but are not limited to, Attorney-Client, Attorney Work-Product, and Deliberative Process.

From: Fickel, Louise
Sent: Thursday, December 14, 2017 1:38 PM
To: Batra, Rakesh
Cc: Konleczny, Katherine ; Mills, Brian ; Drake, Christopher ; Rosenbaum, Matthew
Subject: RE: PJM OE 202c related

Thanks, Rakesh. Chris sent me four documents (b) (5)

Louise

From: Batra, Rakesh
Sent: Thursday, December 14, 2017 1:36 PM
To: Fickel, Louise <Louise.Fickel@Hq.Doe.Gov>
Cc: Konleczny, Katherine <Katherine.Konieczny@Hq.Doe.Gov>; Mills, Brian <Brian.Mills@hq.doe.gov>; Drake, Christopher <Christopher.Drake@hq.doe.gov>; Rosenbaum, Matthew <Matthew.Rosenbaum@hq.doe.gov>

Subject: PJM OE 202c related

Importance: High

Louise:

Please find attached PJM 202(c) Order No. 202-18-2 related documents for web posting.

Kathy: (b) (5)

Thanks,

Rakesh

From: Bittner, Kathy (CONTR)
To: Batra, Rakesh
Cc: Jereza, Catherine
Subject: 2017-008921 - PJM renewal request
Date: Friday, December 01, 2017 2:03:39 PM
Attachments: 2017-008921 - Incoming.pdf

Good afternoon Rakesh,

I wasn't sure if you and Katie have received this correspondence already, but wanted to make sure. (b) (5)

Thanks,

Kathy Bittner
Correspondence Specialist ()
ICF, Contractor for U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability
Phone: (202) 287-5613
Email: kathy.bittner@hq.doe.gov

Johnsen, Steven (MA)

From: Pincus, Steven <Steven.Pincus@pjm.com>
Sent: Wednesday, November 29, 2017 4:13 PM
To: Secretary Perry; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine
Michael Regulinski (Services - 6); Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer,
Craig; O'Hara, Chris; Michael Regulinski (Services - 6); casey.roberts@sierraclub.org;
Robinson, Evelyn
Subject: Order No. 202-17-4 Renewal Application Filing
Attachments: DOE Order 202-17-4 PJM Renewal Application Letter 11-29-17.pdf

Dear Secretary Perry:

PJM respectfully submits for filing a ninety (90) day Renewal Application in accordance with Section 202(c) of the Federal Power Act, the Department of Energy's Rules of Practice and Procedure and Order No. 202-17-4.

Please contact me if you have any questions.

Thank you for your consideration.

Respectfully,

Steven R. Pincus
Associate General Counsel, Office of General Counsel

(610) 666-4370 | C: (b) (6) | Steven.Pincus@pjm.com
PJM Interconnection | 2750 Monroe Blvd. | Audubon, PA 19403

11/29/2017 4:13 PM

From: Bittner, Kathy (CONTR)
To: Jereza, Catherine; Batra, Rakesh
Subject: RE: 2017-008921 - PJM renewal request
Date: Friday, December 01, 2017 2:14:43 PM

Thanks Katie.

-----Original Message-----

From: Jereza, Catherine
Sent: Friday, December 01, 2017 2:14 PM
To: Bittner, Kathy (CONTR) <Kathy.Bittner@hq.doe.gov>; Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Subject: RE: 2017-008921 - PJM renewal request

Hi Kathy - The order must be issued on or before December 13, which is a Wed. (b) (5)

Thanks
Katie

-----Original Message-----

From: Bittner, Kathy (CONTR)
Sent: Friday, December 01, 2017 2:04 PM
To: Batra, Rakesh <Rakesh.Batra@Hq.Doe.Gov>
Cc: Jereza, Catherine <Catherine.Jereza@Hq.Doe.Gov>
Subject: 2017-008921 - PJM renewal request

Good afternoon Rakesh,

I wasn't sure if you and Katie have received this correspondence already, but wanted to make sure. (b) (5)

Thanks,

Kathy Bittner
Correspondence Specialist
ICF, Contractor for U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability
Phone: (202) 287-5613
Email: kathy.bittner@hq.doe.gov

From: Michael Regulinski
To: Secretary Perry; Hoffman, Patricia; Jereza, Catherine; Batra, Rakesh; Konieczny, Katherine
Cc: Bryson, Mike E.; Souder, David W.; Tam, Simon K.; Glazer, Craig; O'Hara, Chris; casey.roberts@sierraclub.org; Robinson, Evelyn; Pincus, Steven
Subject: Order No. 202-17-4 Report on Yorktown Operations
Date: Friday, December 01, 2017 3:12:42 PM
Attachments: [Attachment 1 Yorktown Hourly Emissions Data VALUES 2015 thru 2017.xlsx](#)
[2017-12-01 Dominion Energy letter to Secretary Perry.pdf](#)

Please see attached Yorktown Report requested by DOE staff submitted by PJM Interconnection and Dominion Energy Virginia. Please let me know if you have any questions. Thanks, Mike
Michael C. Regulinski
Managing General Counsel
Dominion Energy Services, Inc.
tel: 738-2794
P: (804) 819-2794
C: (b) (6)
michael.regulinski@dominionenergy.com

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**Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017**

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Hour	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/Hr	Common Stack SC2 (lb/Hr)	Common Stack CO2 (lb/Hr)	Common Stack SO2 (lb/Hr)	Common Stack CO2 (tons/hr)	Unit Operation (minutes)	Ceaf tms/hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/mmBtu)	Mercury (lb/mmBtu)	HCl (lb/mmBtu)	HF (lb/mmBtu)
01-04-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-04-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 19	0	1	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 20	1	1	0.0000	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0
01-05-2015 21	0	0	15.1	0.0000	0.0	0.0000	0.0	1.6	1.00	0.60	0.1255	1.89505	0.000253	3.3068	4.99e-05	0.72789
01-05-2015 22	0	0	63.0	0.0063	0.4	0.0000	0.0	6.5	1.00	2.51	0.1255	7.9065	0.001054	3.3068	0.000208	3.011952
01-05-2015 23	0	0	165.8	0.0247	4.1	0.0000	0.0	17.0	1.00	6.61	0.1255	20.8079	0.002774	3.3068	0.000548	7.926693
01-05-2015 00	0	0	168.1	0.0327	5.5	0.0119	2.0	17.2	1.00	6.70	0.1255	21.09655	0.002813	3.3068	0.000556	8.036653
01-06-2015 01	0	0	168.8	0.0367	6.2	0.0361	6.1	17.3	1.00	6.73	0.1255	21.1844	0.002825	3.3068	0.000558	8.07012
01-06-2015 02	0	0	167.7	0.0400	6.7	0.0417	7.0	17.2	1.00	6.68	0.1255	21.04655	0.002806	3.3068	0.000555	8.01753
01-06-2015 03	0	0	165.3	0.0417	6.9	0.0387	6.4	17.0	1.00	6.59	0.1255	20.74515	0.002766	3.3068	0.000547	7.902789
01-06-2015 04	0	0	163.7	0.0422	6.9	0.0330	5.4	16.8	1.00	6.52	0.1255	20.54435	0.002739	3.3068	0.000541	7.826295
01-06-2015 05	0	0	163.5	0.0428	7.0	0.0361	5.9	16.8	1.00	6.51	0.1255	20.51925	0.002735	3.3068	0.000541	7.816733
01-06-2015 06	0	0	180.3	0.0488	8.3	0.0383	6.9	18.5	1.00	7.18	0.1255	22.62765	0.003017	3.3068	0.000596	8.61992
01-06-2015 07	0	0	178.7	0.0481	8.6	0.0325	5.8	18.3	1.00	7.12	0.1255	22.42685	0.002939	3.3068	0.000591	8.542426
01-06-2015 08	0	0	199.3	0.0522	10.4	0.0472	9.4	20.5	1.00	7.94	0.1255	25.01215	0.003335	3.3068	0.000659	9.657371
01-06-2015 09	0	0	202.0	0.0520	10.5	0.0421	8.5	20.7	1.00	8.05	0.1255	25.351	0.002738	3.3068	0.000668	9.657371
01-06-2015 10	0	0	192.1	0.0597	10.2	0.0597	10.2	21.4	1.00	8.01	0.1255	25.23805	0.003365	3.3068	0.000665	9.614343
01-06-2015 11	0	0	208.6	0.0508	10.6	0.0748	15.6	21.4	1.00	8.31	0.1255	26.1793	0.003491	3.3068	0.000669	9.972908
01-06-2015 12	0	0	226.5	0.0552	12.5	0.0804	18.2	23.2	1.00	9.02	0.1255	28.42575	0.003739	3.3068	0.000749	10.82869
01-06-2015 13	0	16	416.3	0.2160	89.9	0.7444	309.9	42.7	1.00	16.59	0.1255	52.24565	0.006966	3.3068	0.001377	19.90279
01-06-2015 14	0	66	549.4	0.2670	173.4	1.2334	801.0	66.6	1.00	25.87	0.1255	81.4997	0.010866	3.3068	0.002147	31.04701
01-06-2015 15	0	99	980.1	0.3400	333.2	1.8222	1785.9	100.6	1.00	35.05	0.1255	123.0026	0.0164	3.3068	0.003585	46.85737
01-06-2015 16	31	118	1628.4	0.4490	731.2	1.9398	3158.8	167.1	1.00	64.88	0.1255	204.35642	0.027248	3.3068	0.005385	77.85179
01-06-2015 17	92	146	2276.2	0.4410	1003.8	2.0784	4730.9	233.5	1.00	90.69	0.1255	285.6631	0.0380848	3.3068	0.007527	108.8223
01-06-2015 18	99	166	2472.5	0.4610	1139.8	2.0794	5141.4	253.7	1.00	98.51	0.1255	310.2988	0.041373	3.3068	0.008176	118.2072
01-06-2015 19	133	167	2771.1	0.4960	1374.5	2.0499	5680.5	284.3	1.00	110.40	0.1255	347.7731	0.046369	3.3068	0.009163	132.4829
01-06-2015 20	153	151	2834.1	0.4970	1408.5	2.0074	5689.1	290.8	1.00	112.91	0.1255	355.6796	0.047423	3.3068	0.009372	135.4948

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	Date/Hour	YTO1 Gross Load MW Value	YTO2 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lbm/MBtu	Common Stack SO2 (lb/MMBtu)	Common Stack CO2 (t/hr)	Common Stack Unit Operation (minutes)	Cost/t/hr	PM-10 (t/mmBtu)	PM-10 (t/hr)	Lead (t/mmBtu)	Lead (t/hr)	Mercury (t/btu)	Mercury (lb/hr)	HF (lb/hr)
01-06-2015 21	109	129	2176.1	0.5410	1,177.3	1,9878	4325.7	223.3	1.00	86.70	0.1255	273.1006	0.036413	3,3068	0.007396	104.0367
01-06-2015 22	102	103	1896.0	0.4830	915.8	1,9656	3726.7	194.5	1.00	75.54	0.1255	237.948	0.031726	3,3068	0.006522	90.64542
01-06-2015 23	98	100	1859.4	0.4730	879.5	1,9824	3500.2	190.8	1.00	74.08	0.1255	233.3547	0.031113	3,3068	0.006149	88.89562
01-07-2015 00	105	109	1979.4	0.4540	898.6	1,8287	203.1	1.00	78.86	0.1255	248.4147	0.0393121	3,3068	0.006545	94.63267	
01-07-2015 01	105	107	1974.8	0.4570	902.5	1,7623	3480.1	202.6	1.00	78.68	0.1255	247.8374	0.0393044	3,3068	0.006533	94.41275
01-07-2015 02	104	105	1936.2	0.4640	898.4	1,7451	3378.8	198.7	1.00	77.14	0.1255	242.9931	0.032399	3,3068	0.006403	92.56773
01-07-2015 03	110	109	2048.9	0.4440	909.7	1,7334	3551.5	210.2	1.00	81.63	0.1255	257.137	0.034284	3,3068	0.006775	97.95538
01-07-2015 04	121	130	2314.7	0.4630	1071.7	1,7569	4066.8	237.5	1.00	92.22	0.1255	290.4949	0.038732	3,3068	0.007654	110.66629
01-07-2015 05	140	155	2669.3	0.5150	1374.7	1,8052	4818.7	273.9	1.00	106.35	0.1255	334.9972	0.046466	3,3068	0.008827	127.6159
01-07-2015 06	148	162	2829.0	0.5070	1434.3	1,8233	5158.1	290.3	1.00	112.71	0.1255	355.0395	0.047338	3,3068	0.013521	135.251
01-07-2015 07	159	172	3006.6	0.5110	1536.4	1,8329	5510.9	308.5	1.00	119.78	0.1255	377.3283	0.050331	3,3068	0.009942	143.7418
01-07-2015 08	160	173	3018.2	0.5190	1566.4	1,8399	5553.1	309.7	1.00	120.25	0.1255	378.7841	0.050504	3,3068	0.009981	144.2964
01-07-2015 09	160	172	3015.3	0.5230	1577.0	1,8396	5546.8	309.4	1.00	120.13	0.1255	378.4202	0.050455	3,3068	0.009971	144.1578
01-07-2015 10	160	172	3010.8	0.5240	1577.7	1,8308	5512.2	308.9	1.00	119.95	0.1255	377.8354	0.050398	3,3068	0.009965	143.9426
01-07-2015 11	160	172	3011.3	0.5160	1553.8	1,8154	5466.7	309.0	1.00	119.97	0.1255	377.9182	0.050388	3,3068	0.009938	143.9665
01-07-2015 12	160	173	3032.3	0.5150	1561.6	1,7895	5426.3	311.1	1.00	120.81	0.1255	380.5537	0.050331	3,3068	0.010027	145.97073
01-07-2015 13	160	173	3019.7	0.5160	1568.5	1,7723	5387.3	311.9	1.00	121.10	0.1255	381.4824	0.050864	3,3068	0.010041	145.3243
01-07-2015 14	160	173	3036.5	0.5190	1575.9	1,7696	5373.3	311.5	1.00	120.98	0.1255	381.0308	0.050981	3,3068	0.010041	145.1713
01-07-2015 15	160	173	3028.2	0.5210	1577.7	1,7833	5415.2	310.7	1.00	120.65	0.1255	380.0391	0.050671	3,3068	0.010034	144.7745
01-07-2015 16	160	173	3028.9	0.5200	1575.0	1,8036	5463.0	310.8	1.00	120.67	0.1255	380.1227	0.050583	3,3068	0.010016	144.808
01-07-2015 17	160	173	3033.5	0.5210	1580.5	1,7530	5317.6	311.2	1.00	120.86	0.1255	380.7043	0.05076	3,3068	0.010027	144.9705
01-07-2015 18	160	173	3017.6	0.5150	1554.1	1,7394	5248.8	309.6	1.00	120.22	0.1255	378.7088	0.050494	3,3068	0.009979	144.2677
01-07-2015 19	160	172	3017.2	0.5130	1547.8	1,7352	5235.4	309.6	1.00	120.21	0.1255	378.6586	0.050487	3,3068	0.009977	144.2486
01-07-2015 20	160	172	3022.7	0.5180	1565.8	1,6733	5057.9	301.1	1.00	120.43	0.1255	379.3489	0.050579	3,3068	0.009935	144.5116
01-07-2015 21	160	171	3015.7	0.4970	1498.8	1,6733	5046.1	309.4	1.00	120.15	0.1255	378.4704	0.050462	3,3068	0.009972	144.1769
01-07-2015 22	125	171	2706.1	0.5070	1572.0	1,6619	4497.3	277.6	1.00	107.81	0.1255	339.6156	0.045281	3,3068	0.008948	129.3753
01-07-2015 23	95	171	2452.4	0.5060	1240.9	1,6490	4044.1	251.6	1.00	97.71	0.1255	307.7762	0.041036	3,3068	0.00811	117.2467
01-08-2015 00	91	171	2434.7	0.5100	1241.7	1,6447	4004.3	249.8	1.00	97.00	0.1255	305.5549	0.040474	3,3068	0.008051	116.4
01-08-2015 20	160	172	3022.7	0.5180	1565.8	1,6733	5057.9	301.1	1.00	96.14	0.1255	302.8315	0.040377	3,3068	0.007979	115.3625
01-07-2015 21	160	171	3015.7	0.4970	1498.8	1,6733	5046.1	309.4	1.00	96.32	0.1255	305.2913	0.040705	3,3068	0.008044	116.2996
01-07-2015 22	125	171	2706.1	0.5070	1572.0	1,6619	4497.3	277.6	1.00	96.35	0.1255	303.4967	0.040466	3,3068	0.007997	115.6159
01-07-2015 23	95	171	2452.4	0.5060	1240.9	1,6490	4044.1	251.6	1.00	97.64	0.1255	307.7574	0.041009	3,3068	0.008104	117.1697
01-08-2015 00	91	173	2460.3	0.4890	1203.1	1,6239	3995.3	252.4	1.00	98.02	0.1255	308.7677	0.041158	3,3068	0.008136	117.6239
01-08-2015 01	89	171	2413.0	0.5240	1240.3	1,6453	3970.1	247.6	1.00	113.04	0.1255	356.0686	0.047475	3,3068	0.009382	135.643
01-08-2015 02	89	172	2413.6	0.5210	1267.4	1,6521	3970.2	249.6	1.00	96.35	0.1255	351.4638	0.050862	3,3068	0.010051	145.3195
01-08-2015 03	89	173	2529.0	0.5290	1279.3	1,6453	3978.9	248.1	1.00	83.00	0.1255	361.4416	0.034858	3,3068	0.006889	99.55922
01-08-2015 04	89	174	2450.8	0.5220	1279.3	1,6381	4014.6	251.5	1.00	95.57	0.1255	387.6476	0.025222	3,3068	0.004944	71.48367
01-08-2015 05	91	176	2460.3	0.5480	1203.1	1,6239	3995.3	252.4	1.00	80.45	0.1255	189.2666	0.025235	3,3068	0.004937	72.1004
01-08-2015 06	132	174	2837.2	0.4940	1401.6	1,7074	4844.2	291.1	1.00	59.75	0.1255	188.1996	0.025093	3,3068	0.004959	71.58402
01-08-2015 07	157	175	3039.6	0.5020	1525.9	1,8038	5482.9	311.9	1.00	121.10	0.1255	195.6922	0.026092	3,3068	0.005156	74.54821
01-08-2015 08	62	174	2083.2	0.5220	1087.4	1,7969	3743.4	213.7	1.00	83.00	0.1255	198.6289	0.036483	3,3068	0.005234	75.66693
01-08-2015 09	0	176	1495.2	0.5480	819.4	1,7857	2670.0	153.4	1.00	80.45	0.1255	187.5476	0.025222	3,3068	0.006077	96.54024
01-08-2015 10	0	176	1508.1	0.5400	814.4	1,7714	2671.5	154.7	1.00	60.08	0.1255	189.2666	0.025235	3,3068	0.004935	117.8349
01-08-2015 11	0	175	1499.6	0.5470	820.3	1,7663	2648.7	153.9	1.00	59.75	0.1255	188.1996	0.025093	3,3068	0.004959	8.961753
01-08-2015 12	0	175	1559.3	0.5340	832.7	1,6878	2631.8	160.0	1.00	62.12	0.1255	195.6922	0.026092	3,3068	0.005156	18.16494
01-08-2015 13	0	175	1582.7	0.5340	845.2	1,6206	2565.0	162.4	1.00	63.06	0.1255	198.6289	0.036483	3,3068	0.005234	9.318526
01-08-2015 14	52	172	2019.3	0.5140	1037.9	1,7353	3504.1	207.2	1.00	80.45	0.1255	187.5476	0.025222	3,3068	0.006077	12.06753
01-08-2015 15	97	169	2464.7	0.4730	1165.8	1,8752	4621.7	252.9	1.00	98.20	0.1255	309.3199	0.041242	3,3068	0.004915	147.7928
01-08-2015 16	108	152	2399.5	0.4870	1163.6	1,8846	4522.7	246.2	1.00	95.60	0.1255	301.1373	0.040151	3,3068	0.007935	114.7171
01-08-2015 17	152	169	2913.9	0.4860	1416.2	1,8592	5417.4	213.7	1.00	116.09	0.1255	305.6945	0.048758	3,3068	0.009636	139.31
01-08-2015 18	155	173	2587.2	0.4880	1457.8	1,8179	5430.3	306.5	1.00	119.01	0.1255	374.8936	0.049985	3,3068	0.009878	142.8143
01-08-2015 19	156	174	2887.2	0.4880	1457.8	1,7907	5349.2	306.5	1.00	119.01	0.1255	374.8936	0.049985	3,3068	0.005875	178.5179

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	Hour	Y001 Gross Load MW Value	Y002 Gross Load MW Value	Common Stack NOx Lbm/hr (mmBtu)	Common Stack NOx Lbm/hr (mmBtu)	Common Stack SO2 (lbm/hr) (Lbm/hr)	Common Stack CO2 (lbm/hr) (Lbm/hr)	Common Stack C02 (tons/hr)	Unit Operation (minutes)	Crash Downtime (hrs)	PM-10 (nm/m3std)	PM-10 (lb/m3hr)	Lead (lb/m3)	Mercury (lb/m3)	Mercury (lb/m3hr)	HF (lb/m3)	
01-08-2015	20	155	174	2982.5	0.4900	1461.4	1.7593	5247.1	306.0	1.00	118.82	0.1255	374.3038	0.049506	3.3068	0.009862	142.5896
01-08-2015	21	153	175	2974.6	0.4950	1472.4	1.7258	5133.5	305.2	1.00	118.51	0.1255	373.3123	0.049774	3.3068	0.009836	142.212
01-08-2015	22	154	173	2967.3	0.4970	1474.7	1.6590	5041.4	304.4	1.00	118.22	0.1255	372.3962	0.049552	3.3068	0.009812	141.8629
01-08-2015	23	142	147	2593.8	0.5340	1385.1	1.6939	4385.8	266.1	1.00	103.34	0.1255	325.5219	0.043402	3.3068	0.008577	124.0054
01-09-2015	00	131	147	2517.0	0.5400	1359.2	1.6819	4233.9	258.2	1.00	100.28	0.1255	315.8835	0.042417	3.3068	0.008332	120.3347
01-09-2015	01	130	145	2494.6	0.5470	1364.5	1.6591	4138.9	255.9	1.00	99.39	0.1255	313.0723	0.041742	3.3068	0.008249	119.2637
01-09-2015	02	117	142	2375.3	0.5620	1334.9	1.6425	3901.4	243.7	1.00	94.63	0.1255	298.1002	0.039746	3.3068	0.007855	113.5602
01-09-2015	03	123	140	2403.2	0.5560	1336.2	1.6456	3954.6	246.6	1.00	95.75	0.1255	301.6016	0.040713	3.3068	0.007947	114.894
01-09-2015	04	111	136	2245.6	0.5960	1343.7	1.6424	3703.0	231.3	1.00	89.82	0.1255	282.9523	0.037726	3.3068	0.007896	134.7371
01-09-2015	05	109	135	2245.3	0.5790	1295.5	1.6303	3660.8	230.4	1.00	89.45	0.1255	281.7852	0.037571	3.3068	0.007425	107.345
01-09-2015	06	140	154	2692.1	0.5190	1397.2	1.6400	4425.8	276.2	1.00	107.25	0.1255	337.8536	0.045047	3.3068	0.008902	128.706
01-09-2015	07	156	175	3007.4	0.4920	1479.6	1.6434	4942.4	308.6	1.00	119.82	0.1255	377.4287	0.050323	3.3068	0.009945	143.7801
01-09-2015	08	160	176	3057.3	0.4870	1488.9	1.6367	5003.9	313.7	1.00	121.80	0.1255	383.6912	0.051158	3.3068	0.010111	146.1657
01-09-2015	09	161	176	3065.7	0.4950	1517.5	1.6416	5032.8	314.5	1.00	122.14	0.1255	384.7454	0.051299	3.3068	0.010138	146.5673
01-09-2015	10	160	175	3059.3	0.5020	1535.8	1.6457	5034.8	313.9	1.00	121.88	0.1255	383.9422	0.051191	3.3068	0.010116	146.2614
01-09-2015	11	142	151	2646.9	0.5370	1421.4	1.6567	4385.0	271.6	1.00	105.45	0.1255	332.1386	0.044296	3.3068	0.008733	126.545
01-09-2015	12	134	147	2570.1	0.5260	1351.9	1.6597	4265.6	263.7	1.00	102.39	0.1255	322.5476	0.043096	3.3068	0.008499	122.8753
01-09-2015	13	117	127	2252.5	0.5920	1329.0	1.6558	3729.8	231.1	1.00	89.74	0.1255	282.6888	0.037691	3.3068	0.007449	107.6892
01-09-2015	14	117	119	2212.5	0.5930	1312.0	1.6531	3657.4	227.0	1.00	88.15	0.1255	277.6688	0.037022	3.3068	0.007316	105.7769
01-09-2015	15	117	118	2180.9	0.6060	1321.6	1.6673	3636.3	223.8	1.00	86.89	0.1255	273.703	0.036493	3.3068	0.007212	104.2661
01-09-2015	16	122	128	2353.9	0.5690	1339.4	1.6567	3899.6	241.5	1.00	93.78	0.1255	295.4145	0.039388	3.3068	0.007784	112.5371
01-09-2015	17	149	161	2875.1	0.5060	1476.0	1.6760	4819.7	295.1	1.00	114.57	0.1255	360.9129	0.048121	3.3068	0.009519	137.4884
01-09-2015	18	156	169	3013.1	0.4950	1491.5	1.6864	5081.4	309.1	1.00	120.04	0.1255	378.1441	0.050418	3.3068	0.009964	144.0526
01-09-2015	19	153	168	2978.2	0.4920	1465.3	1.6894	5031.3	305.6	1.00	118.65	0.1255	373.7541	0.049834	3.3068	0.009848	142.3841
01-09-2015	20	145	151	2754.6	0.4850	1336.0	1.6792	4625.5	282.6	1.00	109.75	0.1255	345.7023	0.046093	3.3068	0.009109	131.694
01-09-2015	21	149	166	2908.8	0.4720	1373.0	1.6376	4909.0	298.4	1.00	115.89	0.1255	365.0544	0.048673	3.3068	0.009619	139.0661
01-09-2015	22	141	148	2658.7	0.4720	1254.9	1.6823	4472.6	272.8	1.00	105.92	0.1255	333.6659	0.044488	3.3068	0.008792	127.1092
01-09-2015	23	127	145	2522.7	0.5120	1291.6	1.6839	4248.1	258.8	1.00	100.51	0.1255	316.5989	0.042213	3.3068	0.008342	120.6072
01-10-2015	00	126	142	2487.2	0.5020	1248.6	1.6830	4186.0	255.2	1.00	99.09	0.1255	312.1456	0.046168	3.3068	0.008499	118.91
01-10-2015	01	130	148	2507.3	0.5060	1300.6	1.6895	4342.4	263.7	1.00	102.40	0.1255	322.5727	0.043009	3.3068	0.008499	122.8829
01-10-2015	02	124	141	2455.4	0.5100	1252.3	1.6842	4160.0	251.9	1.00	97.82	0.1255	308.1527	0.041086	3.3068	0.008119	117.3896
01-10-2015	03	132	145	2560.3	0.5020	1285.3	1.6870	4319.1	262.7	1.00	102.00	0.1255	321.3177	0.042842	3.3068	0.008466	122.4048
01-10-2015	04	147	160	2824.3	0.4850	1465.3	1.6894	4761.3	289.8	1.00	112.52	0.1255	354.4497	0.047259	3.3068	0.009339	135.0263
01-10-2015	05	145	157	2797.2	0.4750	1328.7	1.6640	4654.5	237.0	1.00	111.44	0.1255	351.0486	0.046806	3.3068	0.00925	133.7307
01-10-2015	06	153	168	2940.3	0.4790	1408.4	1.6736	4920.8	301.7	1.00	117.14	0.1255	369.0077	0.04942	3.3068	0.00923	140.5721
01-10-2015	07	154	169	2968.4	0.4840	1448.3	1.6819	5034.5	304.6	1.00	118.26	0.1255	372.5342	0.049467	3.3068	0.009838	141.9155
01-10-2015	08	155	175	3006.7	0.4820	1449.2	1.6771	5042.5	308.5	1.00	119.79	0.1255	377.3409	0.050311	3.3068	0.009942	143.7466
01-10-2015	09	155	175	3006.9	0.4850	1458.3	1.6774	5043.9	308.5	1.00	119.80	0.1255	377.3656	0.050315	3.3068	0.009943	143.7562
01-10-2015	10	156	175	3012.3	0.4880	1470.0	1.6766	5050.3	309.1	1.00	120.01	0.1255	378.0437	0.050405	3.3068	0.009961	144.0143
01-10-2015	11	155	174	2993.4	0.4840	1448.3	1.6843	5034.5	307.1	1.00	119.26	0.1255	375.6717	0.050089	3.3068	0.009838	143.1108
01-10-2015	12	128	147	2501.9	0.5290	1323.5	1.6868	4204.9	256.7	1.00	99.68	0.1255	313.9885	0.041864	3.3068	0.008273	149.6127
01-10-2015	13	123	139	2400.1	0.5280	1339.3	1.6779	4027.1	246.3	1.00	95.62	0.1255	301.2126	0.040161	3.3068	0.009237	147.458
01-10-2015	14	108	116	2079.0	1.08	1225.1	1.6652	3463.5	213.4	1.00	82.86	0.1255	261.0275	0.034983	3.3068	0.006878	99.3745
01-10-2015	15	102	109	1972.7	0.5610	1106.7	1.6694	3293.2	202.4	1.00	78.59	0.1255	247.5759	0.033009	3.3068	0.006523	94.31235
01-10-2015	16	115	128	2263.6	0.5520	1249.5	1.6888	3845.4	232.2	1.00	90.18	0.1255	284.0838	0.037877	3.3068	0.007485	108.2199
01-10-2015	17	151	167	2934.7	0.4920	1440.9	1.6887	4985.3	301.1	1.00	116.92	0.1255	368.3049	0.049107	3.3068	0.009704	140.3044
01-10-2015	18	154	169	2962.3	0.4760	1410.1	1.6910	5009.3	303.9	1.00	118.02	0.1255	371.7687	0.049568	3.3068	0.009796	141.6239

Dominion Energy - Yardsawn Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Date/Time	Date/Hour	Y091 Gross Load MW Value	Y062 Gross Load MW Value	Common Stack NOx Lbm/hr (mmBtu)	Common Stack NOx Lbm/hr (mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (tons/hr)	Common Stack CO2 (tons/hr)	Coal tons/hr (mmBtu)	Coal tons/hr (mmBtu)	PM-10 (lb/hr)	PM-10 (lb/hr)	Lead (lb/hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HCl (lb/hr)
01-10-2015 19	154	169	2959.4	0.4760	1408.7	1.6931	5010.5	303.6	1.00	117.90	0.1255	371.4047	0.04952	3.3068	0.009786	141.4833	17.68566		
01-10-2015 20	154	169	2959.7	0.4720	1397.0	1.7029	5040.0	303.7	1.00	117.92	0.1255	371.4424	0.049525	3.3068	0.009782	141.4231	17.67749		
01-10-2015 21	154	169	2958.1	0.4780	1414.0	1.7091	5055.6	303.5	1.00	117.85	0.1255	371.2416	0.049498	3.3068	0.009782	141.4231	17.67749		
01-10-2015 22	159	173	3031.4	0.4710	1427.8	1.7122	5190.5	311.0	1.00	120.77	0.1255	380.4407	0.050725	3.3068	0.010024	144.9275	18.11594		
01-10-2015 23	148	167	2884.4	0.4570	1318.2	1.7215	4965.6	295.9	1.00	114.92	0.1255	361.9222	0.048365	3.3068	0.009538	137.8996	17.23745		
01-11-2015 00	152	158	2797.2	0.4680	1309.1	1.7390	4864.4	287.0	1.00	111.44	0.1255	351.0486	0.046806	3.3068	0.009295	133.7307	16.71633		
01-11-2015 01	159	170	3004.3	0.4520	1357.9	1.7304	5198.7	308.2	1.00	119.69	0.1255	377.0597	0.050271	3.3068	0.009935	143.6319	17.95398		
01-11-2015 02	160	175	3019.7	0.4550	1374.0	1.7383	5249.2	309.8	1.00	120.31	0.1255	378.9724	0.050259	3.3068	0.009895	144.3681	18.04602		
01-11-2015 03	160	175	3033.6	0.4560	1383.3	1.7280	5242.2	311.2	1.00	120.86	0.1255	380.7168	0.050761	3.3068	0.010031	145.0327	18.12908		
01-11-2015 04	160	175	3039.1	0.4570	1388.9	1.7243	5240.2	311.8	1.00	121.08	0.1255	381.4071	0.050853	3.3068	0.010005	145.2956	18.16195		
01-11-2015 05	160	174	3009.3	0.4580	1378.3	1.7310	5209.0	308.8	1.00	119.89	0.1255	377.6672	0.050355	3.3068	0.009951	143.8709	17.98336		
01-11-2015 06	160	173	2999.3	0.4600	1379.7	1.7377	5212.0	307.7	1.00	119.49	0.1255	376.4122	0.050187	3.3068	0.009938	143.3928	17.92441		
01-11-2015 07	160	174	3055.2	0.4520	1381.0	1.7377	5308.9	313.5	1.00	121.72	0.1255	383.4276	0.051123	3.3068	0.010103	146.0653	18.25817		
01-11-2015 08	161	175	3069.5	0.4560	1399.7	1.7434	5351.5	314.9	1.00	122.29	0.1255	385.2223	0.051162	3.3068	0.01015	146.7449	18.34363		
01-11-2015 09	160	175	3058.8	0.4600	1407.0	1.7443	5335.6	313.8	1.00	121.86	0.1255	383.8794	0.051183	3.3068	0.01015	146.2375	18.27968		
01-11-2015 10	145	152	2693.8	0.4700	1266.1	1.7310	4662.9	276.4	1.00	107.32	0.1255	338.0719	0.045076	3.3068	0.008998	128.7873	16.09841		
01-11-2015 11	109	118	2096.4	0.5480	1148.8	1.7105	3585.8	215.1	1.00	83.52	0.1255	263.0382	0.035079	3.3068	0.006932	100.2263	12.52829		
01-11-2015 12	101	108	1967.8	0.5460	1074.4	1.6946	3334.6	201.9	1.00	78.40	0.1255	246.9589	0.032927	3.3068	0.006507	94.07809	11.75976		
01-11-2015 13	99	104	1912.3	0.5450	1042.2	1.6897	3231.2	196.2	1.00	76.19	0.1255	239.9937	0.031999	3.3068	0.006324	91.4247	11.42809		
01-11-2015 14	101	104	1944.8	0.5320	1034.6	1.6910	3288.7	199.5	1.00	77.48	0.1255	244.0724	0.032542	3.3068	0.006431	92.57849	11.62231		
01-11-2015 15	102	105	1960.5	0.5330	1015.5	1.7000	3332.9	201.2	1.00	78.11	0.1255	246.0428	0.032805	3.3068	0.006483	93.72908	11.74614		
01-11-2015 16	106	112	2068.9	0.5310	1057.2	1.7091	3336.0	212.3	1.00	82.43	0.1255	259.6467	0.034615	3.3068	0.006841	98.91155	12.36394		
01-11-2015 17	141	159	2776.6	0.4890	1357.8	1.7369	4822.7	284.9	1.00	110.62	0.1255	348.4633	0.046461	3.3068	0.009182	132.7458	16.59332		
01-11-2015 18	148	161	2825.6	0.4890	1381.7	1.7376	4909.7	289.9	1.00	112.57	0.1255	354.6128	0.047281	3.3068	0.009344	135.0884	16.88606		
01-11-2015 19	122	129	2327.6	0.5420	1261.6	1.7159	3993.9	238.8	1.00	92.73	0.1255	292.1138	0.038948	3.3068	0.007697	111.27797	13.90995		
01-11-2015 20	101	104	1888.5	0.5540	1008.5	1.7061	3221.9	193.8	1.00	75.24	0.1255	237.0068	0.03146	3.3068	0.006245	90.28685	11.28586		
01-11-2015 21	122	136	2408.9	0.5200	1252.6	1.7230	4150.6	247.2	1.00	95.97	0.1255	302.3117	0.0404308	3.3068	0.007966	115.16665	14.39582		
01-11-2015 22	106	114	2042.8	0.5670	1158.3	1.7250	3523.9	209.6	1.00	81.39	0.1255	256.3714	0.034182	3.3068	0.006245	97.66337	12.20797		
01-11-2015 23	102	106	1947.4	0.4830	940.6	1.7279	3565.0	199.8	1.00	77.59	0.1255	244.3987	0.032586	3.3068	0.00644	93.10279	11.63745		
01-12-2015 00	100	109	1961.7	0.4760	933.8	1.7410	3415.3	201.3	1.00	78.16	0.1255	246.1934	0.032825	3.3068	0.006487	93.78645	11.72331		
01-12-2015 01	100	102	1895.7	0.4810	911.8	1.7430	3504.2	194.5	1.00	75.53	0.1255	237.9104	0.031721	3.3068	0.006269	90.63108	11.32888		
01-12-2015 02	99	100	1888.5	0.4720	891.4	1.7414	3288.6	193.8	1.00	75.24	0.1255	237.0068	0.0316	3.3068	0.006245	90.28685	11.28586		
01-12-2015 03	98	99	1874.2	0.4770	894.0	1.7470	3274.2	192.3	1.00	74.57	0.1255	285.2121	0.031361	3.3068	0.006198	89.50319	11.2004		
01-12-2015 04	99	100	1880.4	0.4660	876.3	1.7404	3272.6	192.9	1.00	74.92	0.1255	235.9902	0.031465	3.3068	0.006218	89.8996	11.23745		
01-12-2015 05	99	100	1893.8	0.4600	871.1	1.7209	3259.1	194.3	1.00	75.45	0.1255	237.6749	0.03616	3.3068	0.006252	90.54024	11.31752		
01-12-2015 06	121	130	2358.6	0.4560	1071.1	1.7469	4120.3	242.0	1.00	93.97	0.1255	296.0043	0.039467	3.3068	0.007999	112.7618	14.09529		
01-12-2015 11	150	154	2790.6	0.4590	1280.9	1.7440	4866.8	286.3	1.00	111.18	0.1255	350.2203	0.046695	3.3068	0.009228	133.4151	16.67769		
01-12-2015 07	153	158	2972.9	0.4850	1441.9	1.7398	5173.8	305.0	1.00	118.44	0.1255	373.0939	0.049746	3.3068	0.009831	142.1307	17.76633		
01-12-2015 12	149	155	2802.9	0.4610	1292.1	1.7449	4890.7	287.6	1.00	111.67	0.1255	351.764	0.046901	3.3068	0.009269	134.0032	16.75713		
01-12-2015 08	153	169	2983.2	0.4690	1372.0	1.7485	4620.4	192.9	1.00	103.78	0.1255	326.915	0.043588	3.3068	0.008614	124.5371	17.82789		
01-12-2015 09	154	169	2963.3	0.4630	1317.1	1.7298	5018.5	297.7	1.00	113.06	0.1255	371.8942	0.049585	3.3068	0.009799	141.6717	17.70896		
01-12-2015 10	149	166	2901.2	0.4540	1304.3	1.7430	4740.2	240.2	1.00	92.37	0.1255	237.6749	0.03616	3.3068	0.008667	110.8446	13.85558		
01-12-2015 11	150	154	2790.6	0.4590	1280.9	1.7440	4866.8	286.3	1.00	95.29	0.1255	290.9718	0.038796	3.3068	0.009594	138.7028	17.33785		
01-12-2015 07	153	158	2476.0	0.5040	1247.9	1.7454	4321.6	254.0	1.00	98.65	0.1255	310.738	0.041431	3.3068	0.008188	111.9442	13.99303		
01-12-2015 16	129	138	2476.0	0.5040	1247.9	1.7454	4690.8	274.7	1.00	106.65	0.1255	335.9635	0.044794	3.3068	0.008552	127.9841	15.99801		
01-12-2015 17	138	150	2677.0	0.4810	1287.6	1.7523	4690.8	274.7	1.00	106.65	0.1255	335.9635	0.044794	3.3068	0.008552	127.9841	15.99801		

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Substance	Date/Time	Data	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Common Stack NOx Lbm/hr	Common Stack NOx Lbm/hr	Common Stack SO2 (lb/hr)	Common Stack CO2 (ton/hr)	Common Stack CO2 (ton/hr)	Unit Operation (minutes)	Cooling Tower Sh.	PM-10 (50mm/hr)	PM-10 (50mm/hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/hr)	HF (lb/hr)		
	01-12-2015 18		157	168	2999.9	0.4500	1350.0	1.7603	5280.8	307.8	1.00	119.52	0.1255	376.4875	0.050198	3.3068	0.009582	143.4215	17.92769
	01-12-2015 19		152	165	2916.3	0.4610	1344.4	1.7553	5119.0	299.2	1.00	116.19	0.1255	365.9957	0.048799	3.3068	0.009644	139.4247	17.42809
	01-12-2015 20		135	259.7	0.4780	1239.3	1.7462	4527.4	266.0	1.00	103.29	0.1255	325.3839	0.043384	3.3068	0.008573	123.9558	15.49422	
	01-12-2015 21		125	141	2455.1	0.5170	1269.3	1.7458	4286.0	251.9	1.00	97.81	0.1255	308.1151	0.041081	3.3068	0.008118	117.3753	14.67191
	01-12-2015 22		126	144	2474.0	0.5120	1266.7	1.7659	4368.9	253.8	1.00	98.57	0.1255	310.487	0.041398	3.3068	0.008181	118.2789	14.78486
	01-12-2015 23		118	112	2141.5	0.5650	1209.9	1.7807	3813.3	219.7	1.00	85.32	0.1255	268.7583	0.035834	3.3068	0.007051	102.3825	12.79781
	01-13-2015 00		101	104	1919.3	0.5540	1063.3	1.7723	3401.5	196.9	1.00	76.47	0.1255	240.8722	0.032116	3.3068	0.006347	91.75936	11.46992
	01-13-2015 01		102	105	1950.5	0.5290	1031.8	1.7725	3457.2	200.1	1.00	77.71	0.1255	244.7878	0.032638	3.3068	0.006645	93.251	11.65637
	01-13-2015 02		104	107	1977.7	0.5210	1030.4	1.7689	3500.4	202.9	1.00	78.79	0.1255	248.2014	0.033093	3.3068	0.006544	94.55139	11.83892
	01-13-2015 03		98	100	1871.7	0.5410	1012.6	1.7580	3299.5	192.0	1.00	74.57	0.1255	234.8964	0.031319	3.3068	0.006189	89.48367	11.18546
	01-13-2015 04		98	99	1862.3	0.5570	1000.1	1.7564	3271.0	191.1	1.00	74.20	0.1255	233.7187	0.031162	3.3068	0.006158	89.03426	11.12928
	01-13-2015 05		107	110	2066.7	0.4940	1020.9	1.7361	3588.1	212.0	1.00	82.34	0.1255	259.3709	0.034582	3.3068	0.006834	98.30637	12.3508
	01-13-2015 06		146	161	2872.6	0.4790	1376.0	1.7303	4970.6	294.7	1.00	114.45	0.1255	360.5113	0.048067	3.3068	0.009498	137.3355	17.16693
	01-13-2015 07		153	168	2974.4	0.4790	1424.7	1.7129	5094.9	305.2	1.00	118.50	0.1255	373.2872	0.049771	3.3068	0.009836	142.2024	17.7753
	01-13-2015 08		152	167	2944.3	0.4750	1398.5	1.7117	5039.9	302.1	1.00	117.30	0.1255	369.5097	0.049267	3.3068	0.009736	140.7633	17.59542
	01-13-2015 09		154	168	2967.9	0.4680	1389.0	1.7046	5059.2	304.5	1.00	118.24	0.1255	372.4715	0.049652	3.3068	0.009844	141.8916	17.73648
	01-13-2015 10		151	163	2895.6	0.4640	1343.6	1.6917	4898.6	297.1	1.00	115.36	0.1255	363.3978	0.048452	3.3068	0.009575	138.4351	17.30438
	01-13-2015 11		150	161	2876.4	0.4740	1363.4	1.6854	4848.0	295.1	1.00	114.60	0.1255	360.9882	0.048131	3.3068	0.009512	137.5171	17.18964
	01-13-2015 12		147	159	2830.5	0.4740	1341.7	1.6760	4743.8	290.4	1.00	112.77	0.1255	355.2278	0.047363	3.3068	0.00936	135.3227	16.91534
	01-13-2015 13		144	154	2754.9	0.4640	1333.4	1.6787	4624.6	282.7	1.00	109.76	0.1255	345.74	0.046098	3.3068	0.00911	131.7084	16.46355
	01-13-2015 14		134	150	2648.8	0.4950	1511.2	1.6820	4455.4	271.8	1.00	105.53	0.1255	332.4244	0.044323	3.3068	0.008759	126.6359	15.82948
	01-13-2015 15		146	86	2232.5	0.4650	1038.1	1.6945	3783.0	229.1	1.00	88.94	0.1255	280.1788	0.037357	3.3068	0.007382	106.7331	13.34163
	01-13-2015 16		154	0	1499.9	0.4230	634.5	1.7032	2554.6	153.9	1.00	59.76	0.1255	188.2375	0.02598	3.3068	0.01046	71.70837	8.963546
	01-13-2015 17		155	0	1462.1	0.4150	606.8	1.6901	2471.1	150.0	1.00	58.25	0.1255	183.4936	0.024465	3.3068	0.004835	69.9012	8.737649
	01-13-2015 18		159	0	1591.9	0.4110	654.3	1.6019	2501.0	163.3	1.00	63.42	0.1255	199.7835	0.0266637	3.3068	0.005264	76.10677	9.51347
	01-13-2015 19		160	0	1593.6	0.4160	662.9	1.5994	2543.8	163.5	1.00	63.49	0.1255	199.9968	0.0266666	3.3068	0.00527	76.18805	9.525506
	01-13-2015 20		160	0	1601.9	0.4280	685.6	1.6032	2568.2	164.4	1.00	63.82	0.1255	201.0385	0.026805	3.3068	0.005297	76.58486	9.573108
	01-13-2015 21		160	0	1587.8	0.4300	682.8	1.5981	2537.5	162.9	1.00	63.26	0.1255	199.2689	0.0265659	3.3068	0.00525	75.91076	9.488845
	01-13-2015 22		155	0	1523.0	0.4300	654.9	1.5868	2416.7	156.3	1.00	60.68	0.1255	191.1365	0.025484	3.3068	0.005036	72.8127	9.103594
	01-13-2015 23		157	0	1632.1	0.4340	703.3	1.5555	2538.7	167.5	1.00	65.02	0.1255	204.8286	0.02751	3.3068	0.005397	78.02869	9.755586
	01-14-2015 00		67	2169.1	0.4370	947.9	1.6165	3506.3	222.5	1.00	86.42	0.1255	272.2221	0.036296	3.3068	0.007173	103.702	12.96275	
	01-14-2015 01		159	112	2568.7	0.4410	1132.8	1.7134	4401.1	263.6	1.00	102.34	0.1255	322.3719	0.042982	3.3068	0.008494	122.8054	15.3508
	01-14-2015 02		151	158	2874.1	0.4250	1365.2	1.7280	4966.4	294.9	1.00	114.51	0.1255	360.6996	0.048093	3.3068	0.009504	137.4072	17.1759
	01-14-2015 03		154	164	2926.9	0.3740	1094.7	1.7436	5103.4	300.3	1.00	116.61	0.1255	367.326	0.048976	3.3068	0.009679	139.9315	17.49143
	01-14-2015 04		158	176	3056.2	0.3550	1085.0	1.7545	5362.1	313.6	1.00	121.76	0.1255	382.5531	0.051114	3.3068	0.010106	146.1131	18.26414
	01-14-2015 05		157	175	3047.6	0.3510	1069.7	1.7357	5289.6	312.7	1.00	121.42	0.1255	382.4738	0.050996	3.3068	0.010198	145.702	18.22275
	01-14-2015 06		160	176	3063.0	0.3530	1081.2	1.7457	5356.3	314.3	1.00	122.03	0.1255	384.4065	0.051253	3.3068	0.010199	146.4382	18.30478
	01-14-2015 07		161	176	3079.2	0.3550	1093.1	1.7493	5386.4	315.9	1.00	122.68	0.1255	386.4396	0.051524	3.3068	0.010182	147.2127	18.40159
	01-14-2015 08		161	176	3108.2	0.3520	1094.1	1.7842	5590.1	318.9	1.00	123.83	0.1255	390.0791	0.05201	3.3068	0.010278	148.5992	18.5749
	01-14-2015 09		161	176	3082.6	0.3530	1088.2	1.7533	5404.8	316.3	1.00	122.81	0.1255	386.8663	0.051581	3.3068	0.010193	147.3753	18.42191
	01-14-2015 10		160	176	3080.2	0.3530	1087.3	1.7588	5417.6	316.0	1.00	122.72	0.1255	386.5651	0.051541	3.3068	0.010186	147.2606	18.40757
	01-14-2015 11		159	176	3064.6	0.3450	1057.3	1.7658	5411.5	314.4	1.00	122.10	0.1255	384.6073	0.051218	3.3068	0.010184	146.5147	18.31434
	01-14-2015 12		160	176	3107.5	0.3650	1062.4	1.7684	5429.9	315.0	1.00	122.33	0.1255	385.3478	0.051379	3.3068	0.010134	146.7968	18.34936
	01-14-2015 13		160	176	3071.3	0.3440	1056.5	1.7679	5429.7	315.1	1.00	122.36	0.1255	385.4482	0.051397	3.3068	0.010156	146.8351	18.35438
	01-14-2015 14		160	176	3069.0	0.3350	1028.1	1.7649	5416.6	314.9	1.00	122.27	0.1255	385.1595	0.051354	3.3068	0.010148	146.7251	18.34064
	01-14-2015 15		160	175	3062.2	0.3340	1022.8	1.7725	5427.7	314.2	1.00	122.00	0.1255	384.3061	0.05124	3.3068	0.010126	146.4	18.3
	01-14-2015 16		160	176	3061.0	0.3350	1025.4	1.7838	5460.3	314.1	1.00	121.95	0.1255	384.1555	0.05122	3.3068	0.010122	146.3426	18.29783

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Hour	YTO1 Gross Load MW Value	YTO2 Gross Load MW Value	Common Stack Heart Input (mmBtu)	Common Stack NOx Lbm/MW	Common Stack SO2 (Lbm/MMBtu)	Common Stack CO2 (Lbm/MMBtu)	Common Stack Unit Operation (minutes)	Coal ton/hr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
01-14-2015 17	161	175	3079.5	0.3490	1072.7	1.7745	5453.9	315.3	1.00	122.45	0.1255	385.7243	0.051429	3.3068 0.010163
01-14-2015 18	161	174	3034.8	0.3550	1077.4	1.7793	5399.9	311.4	1.00	120.91	0.1255	380.8674	0.050782	3.3068 0.010035
01-14-2015 19	161	173	3027.4	0.3550	1074.7	1.7855	5405.3	310.6	1.00	120.61	0.1255	379.9387	0.050558	3.3068 0.010011
01-14-2015 20	160	170	3014.8	0.3620	1091.4	1.7644	5319.2	309.3	1.00	120.11	0.1255	378.3757	0.050447	3.3068 0.009956
01-14-2015 21	154	170	2959.2	0.3490	1032.8	1.7589	5204.8	303.6	1.00	117.90	0.1255	371.3796	0.049516	3.3068 0.009785
01-14-2015 22	133	168	2749.9	0.3540	973.5	1.7360	4773.9	282.1	1.00	109.56	0.1255	345.1125	0.046014	3.3068 0.009093
01-14-2015 23	116	163	2570.0	0.3580	920.1	1.7388	4468.6	263.7	1.00	102.39	0.1255	322.535	0.043904	3.3068 0.008498
01-15-2015 00	141	153	2679.5	0.3430	919.1	1.7333	4644.4	274.9	1.00	106.75	0.1255	336.2773	0.044836	3.3068 0.008886
01-15-2015 01	142	153	2673.7	0.3500	935.8	1.7396	4651.3	274.3	1.00	106.52	0.1255	335.5494	0.044739	3.3068 0.008841
01-15-2015 02	123	131	2355.7	0.3510	826.9	1.7284	4071.6	241.7	1.00	93.85	0.1255	295.6404	0.039418	3.3068 0.007719
01-15-2015 03	130	131	2416.7	0.3500	845.8	1.7364	4196.4	248.0	1.00	96.28	0.1255	303.2959	0.040439	3.3068 0.007981
01-15-2015 04	129	131	2400.0	0.3630	871.2	1.7377	4170.5	246.2	1.00	95.62	0.1255	301.2	0.040159	3.3068 0.007936
01-15-2015 05	148	157	2840.0	0.3470	985.5	1.7277	4906.6	291.4	1.00	113.15	0.1255	356.42	0.047522	3.3068 0.009981
01-15-2015 06	160	169	3024.7	0.3750	1134.3	1.7452	5278.6	310.3	1.00	120.51	0.1255	379.5999	0.050613	3.3068 0.010002
01-15-2015 07	161	172	3039.4	0.4010	1218.8	1.7525	5326.4	311.8	1.00	121.09	0.1255	381.4447	0.050588	3.3068 0.010051
01-15-2015 08	158	170	3025.9	0.3920	1186.2	1.7443	5278.0	310.5	1.00	120.55	0.1255	379.7505	0.050633	3.3068 0.010006
01-15-2015 09	157	167	2953.5	0.3820	1128.2	1.7668	5218.2	303.2	1.00	117.57	0.1255	370.6643	0.049421	3.3068 0.009767
01-15-2015 10	156	161	2886.6	0.3680	1062.3	1.7739	5120.5	296.2	1.00	115.00	0.1255	362.2683	0.048302	3.3068 0.009545
01-15-2015 11	129	124	2319.0	0.3640	844.1	1.7548	4092.5	237.9	1.00	92.39	0.1255	291.0345	0.038804	3.3068 0.007688
01-15-2015 12	103	104	1938.5	0.4110	796.7	1.7646	3420.6	198.9	1.00	77.23	0.1255	243.2818	0.032437	3.3068 0.00641
01-15-2015 13	111	118	2149.9	0.3630	780.4	1.7537	3770.2	220.6	1.00	85.65	0.1255	269.8125	0.035974	3.3068 0.007109
01-15-2015 14	99	104	1920.5	0.3980	764.4	1.7662	3391.9	197.0	1.00	76.51	0.1255	241.0228	0.032436	3.3068 0.006351
01-15-2015 15	104	114	2046.5	0.3740	765.4	1.7663	3614.8	210.0	1.00	81.53	0.1255	256.8358	0.034244	3.3068 0.006767
01-15-2015 16	98	101	1895.0	0.3930	744.8	1.7655	3346.0	194.5	1.00	75.51	0.1255	237.8476	0.031713	3.3068 0.006267
01-15-2015 17	123	135	2420.7	0.3640	881.1	1.7836	4317.6	248.4	1.00	96.44	0.1255	303.7979	0.040506	3.3068 0.008005
01-15-2015 18	154	161	2864.0	0.3810	1091.2	1.7810	5100.8	293.8	1.00	114.10	0.1255	359.432	0.047924	3.3068 0.009471
01-15-2015 19	151	152	1022.5	0.3690	1277.1	1.7789	4929.5	284.3	1.00	110.40	0.1255	347.7731	0.046369	3.3068 0.009153
01-15-2015 20	146	149	2676.8	0.3640	974.4	1.7788	4761.4	274.6	1.00	106.65	0.1255	335.9984	0.044791	3.3068 0.008852
01-15-2015 21	108	109	2016.7	0.5390	1087.0	1.7787	3587.1	206.9	1.00	80.35	0.1255	253.0959	0.033746	3.3068 0.006659
01-15-2015 22	98	99	1845.2	0.4350	802.6	1.7694	3264.5	189.3	1.00	73.51	0.1255	231.5475	0.030873	3.3068 0.006104
01-15-2015 23	98	99	1864.6	0.4310	803.6	1.7700	3300.4	191.3	1.00	74.29	0.1255	234.0073	0.0312	3.3068 0.006166
01-16-2015 00	92	99	1790.1	0.4180	748.3	1.6813	3009.7	183.7	1.00	73.32	0.1255	224.6576	0.029954	3.3068 0.005919
01-16-2015 01	30	90	1104.2	0.4550	502.4	1.4805	1634.8	113.3	1.00	43.99	0.1255	138.5771	0.018477	3.3068 0.003651
01-16-2015 02	0	87	861.2	0.3760	323.8	1.4208	1223.6	88.4	1.00	34.31	0.1255	108.0806	0.014411	3.3068 0.002848
01-16-2015 03	0	85	898.9	0.3600	323.6	1.4369	1291.6	92.2	1.00	35.81	0.1255	112.8112	0.015041	3.3068 0.002972
01-16-2015 04	0	85	904.8	0.3600	325.7	1.4419	1304.6	92.8	1.00	36.05	0.1255	113.5524	0.015154	3.3068 0.002992
01-16-2015 05	0	85	935.6	0.3540	330.5	1.4093	1315.7	95.8	1.00	37.20	0.1255	117.1668	0.015622	3.3068 0.003087
01-16-2015 06	0	81	763.8	0.3490	266.6	1.4351	1096.1	78.4	1.00	30.43	0.1255	95.8569	0.012781	3.3068 0.002526
01-16-2015 07	0	87.0	0.1630	14.2	1.0756	93.6	8.9	0.25	3.47	0.1255	10.91536	0.001455	3.3068 0.000288	
01-16-2015 08	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0.0000
01-16-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0.0000
01-16-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0.0000
01-16-2015 11	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0.0000
01-16-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0.0000
01-16-2015 13	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0.0000
01-16-2015 14	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0.0000
01-16-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0.0000	0	0.0000

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Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Date/Time B/EZ	Date/Hour	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack Heat Input MMBtu	Common Stack Nox Lb/hr	Common Stack SO2 (lb/mmBtu)	Common Stack SC2 (lb/mmBtu)	Common Stack CO2 (t/hr)	Unit Operation (minutes)	Coal ton/hr	PM-10 (lb/mmBtu)	PM-10 (lb/mmBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
01-16-2015 16	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-16-2015 17	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-16-2015 18	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-16-2015 19	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-16-2015 20	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-16-2015 21	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-16-2015 22	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-16-2015 23	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 00	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 01	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 02	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 03	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 04	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 05	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 06	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 07	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 08	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 09	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 10	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 11	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 12	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 13	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 14	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 15	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 16	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 17	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 18	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 19	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 20	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 21	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 22	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-17-2015 23	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 00	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 01	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 02	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 03	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 04	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 05	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 06	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 07	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 08	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 09	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 10	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 11	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 12	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 13	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 14	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0
01-18-2015 15	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.0	0.0000	0	0

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Date/Time	Date/Hour	YTU1 Gross Load MW Value	YTU2 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/Hr	Common Stack SO2 (Lb/MMBtu)	Common Stack CO2 (tons/Hr)	Common Stack Unit Operation (minutes)	Crabton Stack CO2 (tons/Hr)	Crabton Stack Unit Operation (minutes)	PM-10 (lb/m3)	PM-10 (lb/Hr)	Lead (lb/m3)	Lead (lb/Hr)	Mercury (lb/TBtu)	Mercury (lb/Hr)	HF (lb/m3)	HF (lb/Hr)
01-22-2015	13	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-22-2015	14	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-22-2015	15	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-22-2015	16	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-22-2015	17	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-22-2015	18	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-22-2015	19	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-22-2015	20	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-22-2015	21	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-22-2015	22	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-22-2015	23	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	00	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	01	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	02	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	03	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	04	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	05	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	06	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	07	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	08	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	09	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	10	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	11	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	12	0	0	0.0	0.0000	0.0	0.0	0.00	0.0	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	13	0	0	2.4	0.0000	0.0	0.3	0.17	0.10	0.1255	4.04E-05	7.98E-06	0.1154	0.014426	0	0	0	
01-23-2015	14	0	0	12.9	0.0000	0.0	1.3	0.88	0.52	0.1255	1.623468	0.000216	3.3068	4.28E-05	0.618454	0.077307	0	
01-23-2015	15	0	0	29.9	0.0000	0.0	3.1	1.00	1.19	0.1255	3.775245	0.00005	3.3068	9.89E-05	1.429482	0.178685	0	
01-23-2015	16	1	1	45.3	0.0022	0.1	4.6	1.00	1.80	0.1255	5.68515	0.000758	2.165737	0.270717	0	0	0	
01-23-2015	17	0	0	17.4	0.0033	0.1	0.0000	0.0	0.58	0.69	0.1255	2.1837	0.000291	3.3068	5.75E-05	0.381878	0.103984	0
01-23-2015	18	0	0	10.4	0.0000	0.0	1.1	0.73	0.42	0.1255	1.310095	0.000175	3.3068	3.45E-05	0.499076	0.062384	0	
01-23-2015	19	0	0	8.0	0.0000	0.0	0.8	1.00	0.32	0.1255	1.004	0.000134	3.3068	2.65E-05	0.38247	0.047809	0	
01-23-2015	20	0	0	16.8	0.0000	0.0	0.0000	0.0	1.7	0.67	0.1255	2.1084	0.000281	3.3068	5.56E-05	0.803187	0.100398	0
01-23-2015	21	0	0	4.9	0.0000	0.0	0.0000	0.0	0.5	0.35	0.20	0.1255	0.619343	8.26E-05	3.3068	1.63E-05	0.235956	0.029492
01-23-2015	22	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-23-2015	23	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	00	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	01	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	02	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	03	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	04	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	05	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	06	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	07	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	08	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	09	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	10	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
01-24-2015	11	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.1255	0	0	0.0000	0	0	0	

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Date/Time	Date/Hour	Y001 Gross Load MW Value	Y002 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/MHr	Common Stack SO2 Lb/MHr	Common Stack CO2 Lb/MHr	Common Stack SC2 (Lb/MHr)	Unit Operation (minutes)	Coal tons/hr (lb/mmBtu)	PM-10 (lb/MMHr)	Lead (lb/MMHr)	Mercury (lb/MMHr)	HCl (lb/MMHr)	HF (lb/MMHr)	
01-24-2015 12	0	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
01-24-2015 13	0	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
01-24-2015 14	0	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
01-24-2015 15	0	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
01-24-2015 16	0	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
01-24-2015 17	0	0	6.7	0.0000	0.0	0.0000	0.0	0.00	0.70	0.27	0.1255	0.84336	0.000112	3.3068	2.22E-05	0.321275
01-24-2015 18	0	52.6	0.0133	0.7	0.0000	0.0	0.00	5.4	1.00	2.10	0.1255	6.6013	0.00088	3.3068	0.000174	2.514741
01-24-2015 19	0	65.2	0.0230	1.5	0.0000	0.0	0.00	6.7	1.00	2.60	0.1255	8.1826	0.001091	3.3068	0.000216	3.117131
01-24-2015 20	1	89.6	0.0246	2.2	0.0000	0.0	0.00	9.2	1.00	3.57	0.1255	11.2448	0.001499	3.3068	0.000296	4.283665
01-24-2015 21	0	126.9	0.0252	3.2	0.0000	0.0	0.00	13.0	1.00	5.06	0.1255	15.92595	0.002123	3.3068	0.000642	6.066932
01-24-2015 22	0	242.4	0.0520	12.6	0.0099	2.4	24.9	1.00	9.66	0.1255	30.4712	0.004056	3.3068	0.000802	11.58884	
01-24-2015 23	0	224.1	0.0571	12.8	0.0406	9.1	23.0	1.00	8.93	0.1255	28.12455	0.00375	3.3068	0.000741	10.71394	
01-25-2015 00	0	209.7	0.0582	12.2	0.0620	13.0	21.5	1.00	8.35	0.1255	26.31735	0.003509	3.3068	0.000693	10.0255	
01-25-2015 01	0	193.9	0.0542	10.5	0.0624	12.1	19.9	1.00	7.73	0.1255	24.33445	0.003245	3.3068	0.000641	9.27012	
01-25-2015 02	0	193.4	0.0548	10.6	0.0574	11.1	19.8	1.00	7.71	0.1255	24.2717	0.003236	3.3068	0.00064	9.246215	
01-25-2015 03	0	192.2	0.0541	10.4	0.0546	10.5	19.7	1.00	7.66	0.1255	24.1211	0.004056	3.3068	0.000802	11.448606	
01-25-2015 04	0	180.2	0.0488	8.8	0.0572	10.3	18.5	1.00	7.17	0.1255	22.6151	0.0030316	3.3068	0.000596	11.076892	
01-25-2015 05	0	226.8	0.0520	11.8	0.0573	13.0	23.3	1.00	9.04	0.1255	28.4834	0.003795	3.3068	0.00075	10.84303	
01-25-2015 06	0	209.7	0.0510	10.7	0.0572	12.0	21.5	1.00	8.35	0.1255	26.31735	0.003509	3.3068	0.000693	10.0255	
01-25-2015 07	0	226.5	0.0578	13.1	0.0503	11.5	23.2	1.00	9.02	0.1255	28.42575	0.003739	3.3068	0.000749	10.82889	
01-25-2015 08	1	200.1	0.0550	11.0	0.1244	24.9	20.5	1.00	7.97	0.1255	25.11255	0.003348	3.3068	0.000662	9.566534	
01-25-2015 09	0	206.5	0.0489	10.1	0.0823	17.0	21.2	1.00	8.23	0.1255	25.91075	0.003455	3.3068	0.000596	9.195817	
01-25-2015 10	0	226.8	0.0529	12.0	0.0600	13.6	23.3	1.00	9.04	0.1255	28.4634	0.003795	3.3068	0.00075	10.84303	
01-25-2015 11	0	24	0.1680	70.4	0.65835	275.9	43.0	1.00	16.69	0.1255	52.5845	0.007071	3.3068	0.001386	1.353586	
01-25-2015 12	9	86	1009.5	0.3600	363.4	1.2229	1234.5	103.6	1.00	40.22	0.1255	126.6923	0.016892	3.3068	0.00338	48.26295
01-25-2015 13	71	106	1737.2	0.3840	667.1	1.5530	2697.9	178.2	1.00	69.21	0.1255	218.0186	0.029069	3.3068	0.005745	83.05339
01-25-2015 14	99	102	1952.2	0.4740	925.3	1.7288	3375.0	200.3	1.00	77.78	0.1255	245.0011	0.032666	3.3068	0.006455	98.33227
01-25-2015 15	100	98	1894.4	0.5310	1005.9	1.7723	3262.8	194.4	1.00	75.47	0.1255	237.7477	0.031699	3.3068	0.006264	90.56882
01-25-2015 16	98	98	1859.5	0.5210	963.8	1.7232	3204.3	190.8	1.00	74.08	0.1255	233.3673	0.031115	3.3068	0.006149	88.9004
01-25-2015 17	100	99	1881.2	0.5480	1030.9	1.7226	3243.5	193.7	1.00	74.95	0.1255	236.0905	0.031478	3.3068	0.006219	89.93795
01-25-2015 18	101	98	1887.9	0.5710	1078.0	1.7075	3223.5	193.7	1.00	75.92	0.1255	236.9315	0.031436	3.3068	0.006243	90.25857
01-25-2015 19	101	99	1862.3	0.5480	1020.5	1.7105	3185.5	191.1	1.00	74.20	0.1255	233.7187	0.031162	3.3068	0.006158	89.03426
01-25-2015 20	101	99	1887.3	0.4800	905.9	1.7224	3250.7	193.6	1.00	75.19	0.1255	235.8562	0.031518	3.3068	0.006241	90.32112
01-25-2015 21	98	99	1885.4	0.4480	844.7	1.7331	3267.5	193.4	1.00	75.12	0.1255	236.6177	0.031549	3.3068	0.006155	11.1255
01-25-2015 22	97	100	1878.7	0.3590	749.6	1.7253	3241.3	192.8	1.00	74.85	0.1255	235.7769	0.031436	3.3068	0.006172	89.1833
01-25-2015 23	97	100	1871.8	0.3310	619.6	1.7197	3219.0	192.0	1.00	74.57	0.1255	234.9109	0.031231	3.3068	0.006158	89.48845
01-26-2015 00	98	99	1872.0	0.3510	657.1	1.7461	3268.7	192.1	1.00	74.58	0.1255	234.9336	0.031324	3.3068	0.006169	89.49801
01-26-2015 01	98	99	1880.5	0.3840	722.1	1.7554	3301.1	192.9	1.00	74.92	0.1255	236.0028	0.031467	3.3068	0.006238	89.90438
01-26-2015 02	97	99	1864.7	0.3770	703.0	1.7646	3290.4	191.3	1.00	74.29	0.1255	234.0199	0.031202	3.3068	0.006166	89.149
01-26-2015 03	100	102	1902.6	0.3840	730.6	1.7771	3381.2	195.2	1.00	75.80	0.1255	238.7763	0.031836	3.3068	0.006231	90.96096
01-26-2015 04	99	100	1877.0	0.3580	690.7	1.7869	3354.0	192.6	1.00	74.78	0.1255	235.5635	0.031408	3.3068	0.006207	89.73705
01-26-2015 05	99	105	1943.5	0.3810	740.5	1.7838	3466.8	199.4	1.00	77.43	0.1255	243.9093	0.032521	3.3068	0.006427	92.91633
01-26-2015 06	118	122	2262.8	0.3580	810.1	1.8242	4127.9	232.2	1.00	90.15	0.1255	283.9844	0.037854	3.3068	0.007443	11.124223
01-26-2015 07	125	149	2532.4	0.3900	987.6	1.8311	4637.0	259.8	1.00	100.89	0.1255	317.8162	0.042375	3.3068	0.008374	121.0709
01-26-2015 08	117	149	2475.5	0.3760	930.8	1.8400	4554.8	254.0	1.00	98.63	0.1255	310.6753	0.041423	3.3068	0.008156	11.479382
01-26-2015 09	136	148	2611.3	0.3660	955.7	1.8386	4853.4	267.9	1.00	104.04	0.1255	327.7182	0.043695	3.3068	0.008635	124.843
01-26-2015 10	130	165	2708.4	0.3700	1002.1	1.7778	4815.1	277.9	1.00	107.90	0.1255	339.9042	0.04532	3.3068	0.008956	129.4853

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
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Date/Hour	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Common Stack NOx Lbm/MW	Common Stack NOx Lbm/Hr	Common Stack SO2 (lb/mmh)	Common Stack CO2 (lb/mmBtu)	Common Stack CO2 (t/hour)	Unit Operation minutes	Crating/hr	Pm-10 (lb/mmBtu)	Pm-10 (lb/hr)	Lead (lb/mmBtu)	Lead (lb/hr)	Mercury (lb/mmBtu)	Mercury (lb/hr)	HCl (lb/mmBtu)	HCl (lb/hr)
01-26-2015 11	137	142	2592.3	0.4210	1091.4	1.8507	4797.5	266.0	1.00	103.28	0.1255	325.3337	0.043377	3.3068	0.0085772	123.9347	15.49183
01-26-2015 12	132	135	2474.7	0.3860	955.2	1.8729	4634.8	253.9	1.00	98.59	0.1255	310.5749	0.041409	3.3068	0.008183	118.3124	14.78904
01-26-2015 13	130	128	2381.2	0.3750	893.0	1.8701	4453.1	244.3	1.00	94.87	0.1255	298.8406	0.039845	3.3068	0.007874	113.8422	14.23028
01-26-2015 14	130	129	2388.2	0.3810	913.7	1.8723	4490.1	246.1	1.00	95.55	0.1255	300.9741	0.040129	3.3068	0.007938	114.655	14.33187
01-26-2015 15	129	125	2351.4	0.3840	902.9	1.8716	4400.8	241.3	1.00	93.68	0.1255	295.1007	0.039346	3.3068	0.007766	112.4175	14.05219
01-26-2015 16	130	126	2377.2	0.3770	896.2	1.8734	4453.5	243.9	1.00	94.71	0.1255	298.3386	0.039778	3.3068	0.007861	113.651	14.20687
01-26-2015 17	137	129	2470.3	0.3790	936.2	1.8847	4655.7	253.5	1.00	98.42	0.1255	310.0227	0.041336	3.3068	0.008169	118.102	14.76275
01-26-2015 18	142	138	2596.8	0.3900	1012.8	1.8862	4898.0	266.4	1.00	103.46	0.1255	325.38984	0.043452	3.3068	0.008587	124.1498	15.51873
01-26-2015 19	150	151	2774.0	0.3780	1048.6	1.9065	5288.7	284.6	1.00	110.52	0.1255	348.137	0.046418	3.3068	0.009473	132.6215	16.57779
01-26-2015 20	150	151	2789.0	0.3550	950.1	1.9111	5301.1	286.2	1.00	111.12	0.1255	350.0195	0.046669	3.3068	0.009223	133.3386	16.66733
01-26-2015 21	149	151	2777.9	0.3500	972.3	1.9222	5339.7	285.0	1.00	110.67	0.1255	348.6265	0.046483	3.3068	0.009186	132.808	16.601
01-26-2015 22	125	151	2552.4	0.3700	944.4	1.9328	4933.2	261.9	1.00	101.69	0.1255	320.3262	0.042709	3.3068	0.00844	122.0271	15.25339
01-26-2015 23	111	148	2402.7	0.3430	824.1	1.9391	4659.1	246.5	1.00	95.73	0.1255	301.5389	0.040205	3.3068	0.007945	114.8701	14.35876
01-27-2015 00	98	106	1913.2	0.3990	763.4	1.9218	3676.8	196.3	1.00	76.22	0.1255	240.1066	0.032014	3.3068	0.006527	91.46773	11.43347
01-27-2015 01	97	104	1910.2	0.3940	752.6	1.9058	3640.5	196.0	1.00	76.10	0.1255	239.7301	0.031964	3.3068	0.006513	91.3243	11.41554
01-27-2015 02	103	107	1996.7	0.3800	756.5	1.9158	3813.8	204.2	1.00	79.31	0.1255	249.8329	0.033311	3.3068	0.006583	95.17291	11.89661
01-27-2015 03	99	104	1929.1	0.4080	787.1	1.9196	3690.3	197.9	1.00	76.86	0.1255	242.1024	0.032228	3.3068	0.006579	92.22789	11.52849
01-27-2015 04	105	112	2069.4	0.3780	782.2	1.9196	3972.4	212.3	1.00	82.45	0.1255	259.7097	0.046427	3.3068	0.006543	98.93546	12.36693
01-27-2015 05	100	105	1954.7	0.4190	819.0	1.9126	3738.6	200.6	1.00	77.88	0.1255	245.3149	0.032708	3.3068	0.006464	93.45179	11.68147
01-27-2015 06	113	122	2205.3	0.3930	866.7	1.9312	4258.8	226.3	1.00	87.86	0.1255	276.7552	0.036901	3.3068	0.007292	105.4327	13.17908
01-27-2015 07	131	147	2602.2	0.3790	986.2	1.9334	5031.0	267.0	1.00	103.67	0.1255	326.5761	0.043543	3.3068	0.008505	124.408	15.551
01-27-2015 08	105	105	2472.3	0.4010	991.4	1.9545	4832.2	253.7	1.00	98.50	0.1255	310.2737	0.041569	3.3068	0.008157	118.1976	14.77477
01-27-2015 09	117	164	2580.8	0.3760	970.4	1.9543	5043.6	264.8	1.00	102.82	0.1255	323.8904	0.043185	3.3068	0.008534	123.3849	15.42311
01-27-2015 10	148	163	2857.8	0.3510	1002.8	1.9411	5545.6	293.1	1.00	113.82	0.1255	358.5535	0.047806	3.3068	0.009447	136.58856	17.07371
01-27-2015 11	148	163	2857.9	0.3570	1020.3	1.9340	5527.1	293.2	1.00	113.86	0.1255	358.6665	0.047821	3.3068	0.00945	136.6327	17.07908
01-27-2015 12	143	163	2795.4	0.3780	1056.7	1.9413	5426.7	286.8	1.00	111.37	0.1255	350.8227	0.046776	3.3068	0.009244	133.6446	16.70558
01-27-2015 13	147	163	2844.3	0.3700	1052.4	1.9425	5525.0	291.8	1.00	113.32	0.1255	356.9597	0.047594	3.3068	0.009405	135.9825	16.99781
01-27-2015 14	143	163	2784.4	0.3780	1052.5	1.9455	5417.0	285.7	1.00	110.93	0.1255	349.4422	0.046592	3.3068	0.009207	133.1387	16.63984
01-27-2015 15	133	153	2641.3	0.3750	990.5	1.9315	5101.6	271.0	1.00	105.23	0.1255	331.4832	0.044197	3.3068	0.008734	126.22773	15.78466
01-27-2015 16	139	147	2624.9	0.3650	958.1	1.9413	5095.7	269.3	1.00	104.58	0.1255	329.425	0.043923	3.3068	0.008638	125.4982	15.58665
01-27-2015 17	149	152	2763.8	0.3620	1000.5	1.9322	5340.1	283.6	1.00	110.11	0.1255	346.8369	0.046247	3.3068	0.009139	132.1339	16.51673
01-27-2015 18	153	154	2798.8	0.3500	1032.8	1.9407	5431.7	287.2	1.00	111.51	0.1255	351.2494	0.046833	3.3068	0.009255	133.8072	16.72559
01-27-2015 19	169	157	2984.3	0.3700	1104.2	1.9280	5753.7	306.2	1.00	118.90	0.1255	374.5297	0.049936	3.3068	0.009668	142.6757	17.83446
01-27-2015 20	169	158	2994.7	0.3590	1075.1	1.9281	5774.2	307.3	1.00	119.31	0.1255	375.8349	0.050111	3.3068	0.009873	143.17279	17.88661
01-27-2015 21	169	158	3002.0	0.3590	1077.7	1.9243	5776.8	308.0	1.00	119.60	0.1255	376.751	0.050233	3.3068	0.009926	143.5219	17.94024
01-27-2015 22	158	149	2802.1	0.3500	980.7	1.9280	5402.5	287.5	1.00	111.64	0.1255	351.6636	0.046888	3.3068	0.008581	124.059	15.50737
01-27-2015 23	140	140	2572.1	0.3510	902.8	1.9236	4947.7	263.9	1.00	102.47	0.1255	322.7986	0.043039	3.3068	0.008505	122.9689	15.37112
01-28-2015 00	140	140	2595.0	0.3220	835.6	1.9314	5012.1	266.2	1.00	103.39	0.1255	325.6725	0.043422	3.3068	0.00851	124.0637	15.50797
01-28-2015 01	137	147	2606.7	0.3550	925.4	1.9407	5058.7	267.4	1.00	103.85	0.1255	327.1409	0.043618	3.3068	0.00862	124.6231	15.57789
01-28-2015 02	139	145	2637.9	0.3390	894.2	1.9401	5117.8	270.6	1.00	105.10	0.1255	331.0565	0.04414	3.3068	0.008723	126.1147	15.76434
01-28-2015 03	139	145	2594.9	0.3520	913.4	1.9397	5033.4	266.2	1.00	103.38	0.1255	325.66	0.043421	3.3068	0.00851	124.059	15.50737
01-28-2015 04	142	149	2679.8	0.3570	956.7	1.9367	5190.1	274.9	1.00	106.76	0.1255	336.3149	0.044841	3.3068	0.008861	128.1179	16.01474
01-28-2015 05	150	153	2826.5	0.3660	1034.5	1.9414	5410.3	290.7	1.00	118.61	0.1255	354.7258	0.047946	3.3068	0.009347	135.1315	16.89143
01-28-2015 06	167	157	2979.1	0.3510	1045.7	1.9268	5740.2	305.7	1.00	118.69	0.1255	373.8771	0.049849	3.3068	0.009851	142.4271	17.89339
01-28-2015 07	170	158	2987.6	0.3560	1063.6	1.9392	5793.6	306.5	1.00	119.03	0.1255	374.9438	0.049992	3.3068	0.009879	142.8335	17.85418
01-28-2015 08	168	158	2995.2	0.3520	1084.3	1.9348	5795.1	307.3	1.00	119.33	0.1255	375.8976	0.050119	3.3068	0.009904	143.1968	17.8996
01-28-2015 09	155	158	2892.0	0.3440	994.8	1.9348	5595.4	296.7	1.00	115.22	0.1255	362.946	0.048392	3.3068	0.009533	138.2629	17.23287

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Stack ID Date	Date/Hour	Y001 Gross Load MW Value	Y002 Gross Load MW Value	Common Stack		Common Stack		Common Stack		Common Stack		Unit Operation (minutes)		Coal ton/hr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
				NOx Lb/mmBtu	NOx Lb/Hr	SO2 (lb/mmBtu)	SO2 (lb/Hr)	CO2 (lb/mmBtu)	CO2 (lb/Hr)	Unit	Operation									
01-28-2015 10	132	154	2649.2	0.3900	1033.2	1.9357	5128.1	271.8	100	105.55	0.1255	332.4746	0.044329	3.3068	0.00876	126.655	15.33187			
01-28-2015 11	116	135	2333.8	0.3970	926.5	1.9372	4521.0	239.5	100	92.98	0.1255	292.8919	0.039052	3.3068	0.007717	111.5761	13.94701			
01-28-2015 12	106	138	2260.7	0.3590	811.6	1.9298	4362.6	231.9	100	90.07	0.1255	283.7179	0.0379228	3.3068	0.007476	108.0813	13.51016			
01-28-2015 13	104	112	2030.3	0.3150	639.5	1.9245	3907.4	208.3	100	80.89	0.1255	254.8027	0.039373	3.3068	0.006714	97.06614	12.13327			
01-28-2015 14	103	101	1921.9	0.3310	636.1	1.9292	3707.7	197.2	100	76.57	0.1255	241.1985	0.032459	3.3068	0.006355	91.88367	11.48546			
01-28-2015 15	101	99	1883.1	0.3370	634.6	1.9313	3636.9	193.2	100	75.02	0.1255	236.3291	0.03151	3.3068	0.006227	90.2869	11.525359			
01-28-2015 16	106	111	2017.4	0.3410	687.9	1.9406	3915.0	207.0	100	80.37	0.1255	253.1837	0.033757	3.3068	0.0065671	96.4494	12.05618			
01-28-2015 17	148	152	2783.4	0.3560	990.9	1.9649	5469.0	285.6	100	110.89	0.1255	349.3167	0.046375	3.3068	0.009204	133.0709	16.63386			
01-28-2015 18	154	153	2795.4	0.3430	592.8	1.9760	5523.6	286.8	100	111.37	0.1255	350.8227	0.046776	3.3068	0.009244	133.6446	16.70558			
01-28-2015 19	159	155	2895.5	0.3440	997.1	1.9613	5691.3	297.4	100	115.48	0.1255	363.7518	0.048598	3.3068	0.009585	138.5737	17.32171			
01-28-2015 20	162	155	2925.9	0.3600	1053.3	1.9685	5759.7	300.2	100	116.57	0.1255	367.2005	0.048959	3.3068	0.009675	139.8837	17.48546			
01-28-2015 21	163	154	2905.3	0.3520	1022.7	1.9873	5775.8	298.1	100	115.75	0.1255	364.6152	0.048615	3.3068	0.009567	138.8988	17.36235			
01-28-2015 22	161	148	2813.3	0.3480	979.0	1.9960	5615.4	288.6	100	112.08	0.1255	353.0692	0.047075	3.3068	0.009593	134.5004	16.81255			
01-28-2015 23	132	139	2495.4	0.3720	928.3	2.0044	5001.9	256.0	100	99.42	0.1255	313.1727	0.041756	3.3068	0.008252	119.302	14.91275			
01-29-2015 00	124	110	2171.8	0.3890	844.8	1.9991	4341.6	222.8	100	86.53	0.1255	272.5609	0.036341	3.3068	0.007182	103.8311	12.97888			
01-29-2015 01	106	99	1896.1	0.4070	771.7	1.9976	3787.9	194.5	100	75.54	0.1255	237.9606	0.031728	3.3068	0.006502	90.6502	11.39127			
01-29-2015 02	98	99	1886.9	0.3850	726.5	1.9810	3737.9	193.6	100	75.18	0.1255	236.906	0.031724	3.3068	0.00624	90.21036	11.27629			
01-29-2015 03	103	105	1933.1	0.3820	738.4	1.9980	3862.4	198.3	100	70.02	0.1255	242.6041	0.032347	3.3068	0.006392	92.41912	11.52239			
01-29-2015 04	133	146	2528.0	0.3840	970.8	2.0139	5091.2	259.4	100	100.72	0.1255	317.264	0.042301	3.3068	0.008356	120.8606	15.10757			
01-29-2015 05	141	150	2619.5	0.3560	932.5	2.0134	5274.1	268.8	100	104.36	0.1255	328.7473	0.043832	3.3068	0.008662	125.2351	15.65438			
01-29-2015 06	159	150	2765.3	0.3420	945.9	2.0105	5560.6	283.8	100	110.19	0.1255	347.1079	0.046528	3.3068	0.009146	132.2295	16.52869			
01-29-2015 07	162	153	2837.1	0.3500	993.0	2.0071	5694.4	291.1	100	113.03	0.1255	365.0561	0.047473	3.3068	0.009332	135.6382	16.95478			
01-29-2015 08	167	157	2893.7	0.3600	1041.7	2.0137	5827.1	296.9	100	115.29	0.1255	363.1594	0.048442	3.3068	0.009589	138.34402	17.29303			
01-29-2015 09	146	149	2617.7	0.3550	876.9	2.0261	5303.7	258.6	100	104.29	0.1255	328.5214	0.043802	3.3068	0.008656	125.149	15.64363			
01-29-2015 10	127	146	2447.1	0.3650	898.2	2.0237	4952.3	251.1	100	97.49	0.1255	307.1111	0.040947	3.3068	0.008052	116.9928	14.62441			
01-29-2015 11	113	152	2396.2	0.3200	766.8	2.0115	4819.9	245.8	100	95.47	0.1255	300.7231	0.040936	3.3068	0.007924	114.5594	14.31992			
01-29-2015 12	108	115	2029.3	0.3240	657.5	2.0083	4075.5	208.2	100	80.85	0.1255	254.6772	0.033956	3.3068	0.00671	97.01833	12.12729			
01-29-2015 13	104	112	1967.7	0.3210	651.3	2.0164	3967.7	2019.9	100	78.39	0.1255	246.9464	0.032926	3.3068	0.006507	94.07331	11.75916			
01-29-2015 14	99	110	1910.8	0.3440	657.3	2.0178	3855.7	196.0	100	76.13	0.1255	239.8054	0.031974	3.3068	0.006319	91.35299	11.14912			
01-29-2015 15	99	102	1873.8	0.3380	633.3	2.0010	3749.5	192.3	100	74.65	0.1255	235.1619	0.031354	3.3068	0.006196	89.58406	11.19801			
01-29-2015 16	102	127	2115.9	0.3260	639.8	2.0173	4268.5	217.1	100	84.30	0.1255	265.5055	0.035405	3.3068	0.006997	101.15856	12.64482			
01-29-2015 17	130	150	2562.4	0.3700	948.1	2.0318	5206.4	252.9	100	102.09	0.1255	321.5842	0.042877	3.3068	0.008473	122.5052	15.31315			
01-29-2015 18	149	153	2718.1	0.3690	1003.0	2.0146	5476.0	278.9	100	108.29	0.1255	341.1216	0.045482	3.3068	0.008988	129.949	16.24363			
01-29-2015 19	130	151	2559.6	0.3900	998.2	2.0167	5162.0	262.6	100	101.98	0.1255	321.2298	0.04235	3.3068	0.008464	122.3713	15.29641			
01-29-2015 20	122	144	2408.6	0.3840	924.9	2.0229	4872.3	247.1	100	95.96	0.1255	302.2793	0.040930	3.3068	0.007955	115.1522	14.38402			
01-29-2015 21	100	143	2229.3	0.3460	771.3	2.0083	4477.1	228.7	100	88.32	0.1255	279.7772	0.037903	3.3068	0.007372	106.5801	13.32251			
01-29-2015 22	98	125	2059.7	0.3390	698.2	2.0126	4145.4	211.3	100	82.06	0.1255	258.4924	0.034465	3.3068	0.006183	93.14196	12.30896			
01-29-2015 23	98	106	1901.2	0.3750	713.0	2.0185	3837.6	195.1	100	75.75	0.1255	238.6006	0.031813	3.3068	0.006287	90.89402	13.36475			
01-30-2015 00	100	113	1979.1	0.3870	765.9	2.0013	3960.7	203.1	100	78.85	0.1255	248.3771	0.033116	3.3068	0.006544	94.51833	11.82729			
01-30-2015 01	98	100	1870.8	0.4100	767.0	1.9986	3739.0	191.9	100	74.53	0.1255	234.7854	0.031304	3.3068	0.006186	89.44064	11.18008			
01-30-2015 02	98	100	1863.9	0.4000	745.6	1.9970	3722.2	191.2	100	74.26	0.1255	233.9195	0.031189	3.3068	0.006163	89.11076	11.15384			
01-30-2015 03	98	100	1875.1	0.3980	746.3	1.9919	3735.1	192.4	100	74.71	0.1255	235.3251	0.031376	3.3068	0.006201	89.64622	11.20578			
01-30-2015 04	98	107	1877.5	0.4040	758.5	1.9930	3741.8	192.6	100	74.80	0.1255	235.6263	0.031416	3.3068	0.006287	89.76096	11.22012			
01-30-2015 05	111	130	2291.6	0.3790	868.5	1.9972	4576.8	235.1	100	91.30	0.1255	287.5958	0.038345	3.3068	0.007578	109.5586	13.63482			
01-30-2015 06	152	160	2880.1	0.3960	1140.5	2.0169	5808.9	295.5	100	114.75	0.1255	361.4526	0.048193	3.3068	0.009524	137.694	17.21175			
01-30-2015 07	169	158	2960.7	0.4120	1219.8	2.0374	6032.0	303.8	100	117.96	0.1255	371.5679	0.049542	3.3068	0.00979	141.5474	17.69343			
01-30-2015 08	155	157	2850.8	0.3690	1051.9	2.0247	5772.0	292.5	100	113.58	0.1255	357.7754	0.047703	3.3068	0.009427	136.2932	17.03665			

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	Date/Hour	Y001 Gross Load MW Value	Y002 Gross Load MW Value	Common Stack Heat Inlet (mmBtu)	Common Stack NOx Lbm/Hr	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (lb/mmBtu)	Common Stack CO2 (tons/Hr)	Common Stack Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmHg) (lb/mmHg)	PM-10 (lb/mmHg) (lb/mmHg)	Lead (lb/mm)	Mercury (lb/mm)	HCl (lb/mm)	HF (lb/mm)	
01-30-2015 09	153	158	2819.9	0.3550	1001.1	2.0465	5771.0	289.3	1.00	112.35	0.1255	353.8975	0.047186	3.3068	0.009325	134.8459	16.85199
01-30-2015 10	165	153	2881.6	0.3650	1051.8	2.0366	5858.7	295.7	1.00	114.80	0.1255	361.6408	0.048218	3.3068	0.009529	137.7657	17.22072
01-30-2015 11	150	151	2715.6	0.3460	989.6	2.0333	5521.7	278.6	1.00	108.19	0.1255	340.8078	0.04544	3.3068	0.00898	129.8295	16.22869
01-30-2015 12	146	152	2672.6	0.3620	967.5	2.0533	5487.6	274.2	1.00	106.48	0.1255	335.4113	0.044721	3.3068	0.008838	127.7737	15.97171
01-30-2015 13	149	151	2704.2	0.3630	981.6	2.0500	5543.6	277.5	1.00	107.74	0.1255	339.3771	0.048225	3.3068	0.008842	129.2845	16.16056
01-30-2015 14	135	149	2619.6	0.3810	998.1	2.0413	5347.4	268.8	1.00	104.37	0.1255	328.7598	0.043834	3.3068	0.008662	125.2398	15.54948
01-30-2015 15	140	140	2428.2	0.3880	942.1	2.0500	4977.8	249.1	1.00	96.74	0.1255	304.7931	0.040631	3.3068	0.008093	116.0892	14.51116
01-30-2015 16	139	156	2726.5	0.3790	1033.3	2.0500	5589.2	279.7	1.00	108.63	0.1255	342.1758	0.045623	3.3068	0.009016	130.3506	16.29382
01-30-2015 17	159	158	2885.2	0.3800	1096.4	2.0587	5939.9	296.0	1.00	114.95	0.1255	362.0926	0.048278	3.3068	0.009541	137.9378	17.24223
01-30-2015 18	167	165	3006.9	0.3580	1076.5	2.0573	6186.0	308.5	1.00	119.80	0.1255	377.366	0.050315	3.3068	0.009943	143.7562	17.96952
01-30-2015 19	165	161	2958.0	0.3540	1047.1	2.0555	6080.1	303.5	1.00	117.85	0.1255	371.229	0.049496	3.3068	0.009781	141.4183	17.67729
01-30-2015 20	151	161	2835.2	0.3450	978.1	2.0493	5810.3	290.9	1.00	112.96	0.1255	355.8176	0.047442	3.3068	0.009375	135.5474	16.94343
01-30-2015 21	164	156	2903.1	0.3440	998.7	2.0473	5943.4	297.9	1.00	115.66	0.1255	364.3391	0.048578	3.3068	0.00996	138.7936	17.3492
01-30-2015 22	161	152	2813.9	0.3510	987.7	2.0593	5794.8	288.7	1.00	112.11	0.1255	353.1445	0.047085	3.3068	0.009305	134.5291	16.81614
01-30-2015 23	149	151	2715.1	0.3610	980.2	2.0508	5568.2	278.6	1.00	108.17	0.1255	340.7451	0.04532	3.3068	0.008978	129.8056	16.2257
01-31-2015 00	147	146	2666.3	0.3780	1007.9	2.0410	5441.9	273.6	1.00	106.23	0.1255	334.6207	0.044615	3.3068	0.008817	127.4725	15.93406
01-31-2015 01	158	151	2916.4	0.3750	1098.7	2.0462	5967.6	299.2	1.00	116.19	0.1255	366.0082	0.0488	3.3068	0.00954	139.4295	17.42866
01-31-2015 02	153	154	2776.1	0.3680	1021.6	2.0502	5691.6	284.8	1.00	110.60	0.1255	348.4006	0.046453	3.3068	0.00918	132.7219	16.59024
01-31-2015 03	159	163	2933.8	0.3800	1114.8	2.0527	6022.3	301.0	1.00	116.88	0.1255	368.1919	0.049091	3.3068	0.009701	140.2614	17.53267
01-31-2015 04	162	165	2962.8	0.3810	1128.8	2.0623	6110.3	304.0	1.00	118.04	0.1255	371.8314	0.049577	3.3068	0.009797	141.6478	17.70598
01-31-2015 05	162	165	2995.8	0.3770	1114.4	2.0386	6107.3	307.4	1.00	119.35	0.1255	375.9729	0.050129	3.3068	0.009606	143.2255	17.90319
01-31-2015 06	162	165	3055.7	0.3750	1145.9	2.0623	6301.7	313.5	1.00	121.74	0.1255	385.4904	0.051131	3.3068	0.010164	146.0892	18.26116
01-31-2015 07	170	171	3069.6	0.4120	1264.7	2.0763	6373.5	314.9	1.00	122.29	0.1255	385.2348	0.051364	3.3068	0.01015	146.7538	18.34422
01-31-2015 08	170	175	3098.4	0.4190	1298.3	2.0700	5413.6	317.9	1.00	123.44	0.1255	388.8492	0.051846	3.3068	0.010246	148.1307	18.51633
01-31-2015 09	170	176	3135.9	0.4200	1317.1	2.0578	6453.0	321.7	1.00	124.94	0.1255	393.5555	0.052473	3.3068	0.010137	149.9235	18.74044
01-31-2015 10	165	175	3073.8	0.4160	1278.7	2.0744	6376.2	315.4	1.00	122.46	0.1255	385.7619	0.051434	3.3068	0.010164	146.9546	18.36932
01-31-2015 11	154	173	2959.5	0.4040	1195.7	2.0744	6139.4	303.7	1.00	117.91	0.1255	371.4298	0.049523	3.3068	0.009787	141.4948	17.68685
01-31-2015 12	127	144	2487.0	0.4200	1044.5	2.0620	5128.2	255.2	1.00	99.08	0.1255	312.1185	0.046165	3.3068	0.008224	118.9004	14.82525
01-31-2015 13	111	117	2099.3	0.4470	375.4	2.0476	4298.5	215.4	1.00	83.54	0.1255	263.4622	0.053128	3.3068	0.006642	109.3649	12.54562
01-31-2015 14	98	100	1853.3	0.4080	756.1	2.0335	4768.6	190.1	1.00	73.84	0.1255	232.5892	0.031011	3.3068	0.006128	88.50398	11.0755
01-31-2015 15	98	100	1850.1	0.3980	708.7	2.0432	3789.8	189.8	1.00	73.72	0.1255	232.2127	0.030961	3.3068	0.006119	88.46056	11.05755
01-31-2015 16	99	101	1882.2	0.3820	719.0	2.0499	3853.4	193.1	1.00	74.99	0.1255	236.2161	0.031495	3.3068	0.006224	89.98566	11.24821
01-31-2015 17	107	113	2023.5	0.3600	728.5	2.0636	4185.8	207.6	1.00	80.62	0.1255	253.9493	0.033839	3.3068	0.006631	96.74104	12.09263
01-31-2015 18	144	159	2756.3	0.3650	1000.5	2.0662	5695.2	282.8	1.00	109.81	0.1255	345.9157	0.046121	3.3068	0.009114	131.7753	16.47191
01-31-2015 19	159	166	2940.1	0.3860	1134.9	2.0259	6035.6	301.6	1.00	117.14	0.1255	368.9826	0.049197	3.3068	0.007722	140.5625	17.57032
01-31-2015 20	159	170	3001.1	0.3340	1152.4	2.0319	6097.8	307.9	1.00	119.57	0.1255	376.6381	0.050218	3.3068	0.009924	143.4789	17.93486
01-31-2015 21	97	105	1048.1	0.3870	1048.1	2.0217	5475.1	277.9	1.00	107.90	0.1255	339.8791	0.045316	3.3068	0.008935	129.4757	16.18446
01-31-2015 22	121	128	2283.1	0.4080	931.5	2.0236	4620.1	234.2	1.00	90.96	0.1255	286.5291	0.038203	3.3068	0.007525	109.1522	13.54402
01-31-2015 23	99	101	1832.5	0.4860	799.0	2.0258	3712.3	188.0	1.00	73.01	0.1255	229.9788	0.030653	3.3068	0.00606	87.60956	10.9512
02-01-2015 00	98	119	2019.0	0.3790	765.2	2.0233	4085.1	207.1	1.00	80.44	0.1255	253.3845	0.033784	3.3068	0.006676	96.5259	12.05574
02-01-2015 01	99	130	2115.6	0.3790	801.8	2.0284	4291.2	217.1	1.00	84.29	0.1255	265.5078	0.03534	3.3068	0.006986	101.1442	12.64303
02-01-2015 02	97	105	1873.0	0.3810	713.6	2.0172	3778.2	192.2	1.00	74.62	0.1255	235.0615	0.031241	3.3068	0.006194	89.54582	11.19323
02-01-2015 03	93	100	1792.1	0.3600	645.2	2.0121	3605.8	183.9	1.00	71.40	0.1255	224.9086	0.029987	3.3068	0.005925	85.67899	10.70976
02-01-2015 04	93	100	1801.6	0.3510	632.4	2.0074	3616.5	184.8	1.00	71.78	0.1255	226.1008	0.030146	3.3068	0.005957	86.13227	10.76653
02-01-2015 05	93	106	1828.8	0.3520	662.0	1.9932	3645.2	187.6	1.00	72.86	0.1255	229.5144	0.030601	3.3068	0.006047	87.43267	10.92908
02-01-2015 06	99	105	1918.3	0.3500	671.4	1.9829	3803.8	196.8	1.00	76.43	0.1255	240.7467	0.032099	3.3068	0.006343	91.71155	11.46394
02-01-2015 07	104	109	1592.8	0.3440	683.5	204.5	3965.8	204.5	1.00	79.39	0.1255	250.0964	0.033346	3.3068	0.00659	95.27331	11.90916

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	Date/Hour	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lbm/MW	Common Stack NOx Lbm/MMBtu	Common Stack SO2 lb/MMBtu	Common Stack SC12 (Lb/MHr)	Common Stack SC2 (Lb/MHr)	Common Stack CO2 (tons/MHr)	Common Stack Unit Operation (minutes)	Coal ton/hr	PM-10 (ton/mmst)	PM-10 (Lb/MHr)	Lead (lb/m)	Mercury (lb/m)	HCl (lb/m)	HF (lb/m)
02-01-2015 08	138	156	2712.0	0.3620	981.7	2.0032	5432.6	278.3	1.00	108.05	0.1255	340.356	0.04538	3.3068	0.008568	129.6574	16.20717	
02-01-2015 09	155	161	2868.9	0.3700	1061.5	2.0058	5754.5	294.3	1.00	114.30	0.1255	360.047	0.048005	3.3068	0.009487	137.1586	17.14482	
02-01-2015 10	164	172	3033.1	0.3660	1110.1	2.0102	6097.2	311.2	1.00	120.84	0.1255	380.6541	0.050753	3.3068	0.010038	145.0088	18.1261	
02-01-2015 11	132	135	2389.0	0.3880	926.9	2.0113	4805.0	245.1	1.00	95.18	0.1255	299.8195	0.039975	3.3068	0.00977	114.2551	14.27689	
02-01-2015 12	100	103	1869.1	0.3800	7103.3	1.9822	3705.0	191.8	1.00	74.47	0.1255	234.5721	0.031276	3.3068	0.006181	89.35936	11.16992	
02-01-2015 13	107	115	2030.2	0.3490	708.5	1.9821	4024.1	208.3	1.00	80.88	0.1255	254.7901	0.033971	3.3068	0.006713	97.06135	12.13267	
02-01-2015 14	124	137	2387.1	0.3540	845.0	1.9925	4756.3	244.9	1.00	95.10	0.1255	299.5811	0.039944	3.3068	0.007894	114.1243	14.26554	
02-01-2015 15	127	141	2411.8	0.4020	969.5	2.0113	4850.8	247.4	1.00	96.09	0.1255	302.6809	0.040357	3.3068	0.007975	115.3052	14.41315	
02-01-2015 16	128	142	2464.0	0.3960	975.7	1.9945	4914.5	252.8	1.00	98.17	0.1255	309.232	0.041223	3.3068	0.008148	117.8008	14.7251	
02-01-2015 17	142	156	2699.1	0.3800	1025.7	2.0089	5422.2	276.9	1.00	107.53	0.1255	338.7371	0.045164	3.3068	0.008925	129.0406	16.13008	
02-01-2015 18	159	160	2848.2	0.3850	1096.6	2.0155	5740.6	292.2	1.00	113.47	0.1255	357.4491	0.047559	3.3068	0.009418	136.1689	17.02112	
02-01-2015 19	112	119	2072.6	0.4230	876.7	1.9938	4132.3	212.6	1.00	82.57	0.1255	260.1113	0.034681	3.3068	0.006854	99.08845	12.38606	
02-01-2015 20	101	103	1865.4	0.3630	677.1	1.9847	3702.2	191.4	1.00	74.32	0.1255	234.1077	0.031214	3.3068	0.006168	88.18247	11.14781	
02-01-2015 21	125	141	2416.0	0.3610	872.2	1.9999	4831.7	247.9	1.00	96.25	0.1255	303.208	0.040427	3.3068	0.007589	115.506	14.43825	
02-01-2015 22	126	135	2371.4	0.3950	936.7	1.9789	4692.7	243.3	1.00	94.48	0.1255	297.6107	0.045164	3.3068	0.007842	113.3737	14.17171	
02-01-2015 23	125	111	2129.7	0.4000	851.9	1.9636	4192.5	218.5	1.00	84.85	0.1255	267.2774	0.035636	3.3068	0.007044	101.8183	12.77279	
02-02-2015 00	98	107	1888.7	0.3700	698.8	1.9438	3671.3	193.8	1.00	75.25	0.1255	237.0319	0.031604	3.3068	0.006246	90.29641	11.28707	
02-02-2015 01	98	103	1856.9	0.3460	642.5	1.9354	3593.9	190.5	1.00	73.98	0.1255	233.041	0.031072	3.3068	0.00514	88.7761	11.09701	
02-02-2015 02	98	100	1833.1	0.3400	623.3	1.9313	3540.2	188.1	1.00	73.03	0.1255	230.0541	0.030673	3.3068	0.006062	87.63825	10.95478	
02-02-2015 03	98	100	1816.8	0.3480	632.2	1.9441	3532.1	186.4	1.00	72.38	0.1255	228.0084	0.030401	3.3068	0.006008	86.85896	10.85737	
02-02-2015 04	98	100	1817.7	0.3460	628.9	1.9448	3535.1	186.5	1.00	72.42	0.1255	228.1214	0.030416	3.3068	0.006011	86.90199	10.85275	
02-02-2015 05	98	100	1816.0	0.3240	588.4	1.9357	3515.3	186.3	1.00	72.35	0.1255	227.908	0.030387	3.3068	0.006005	86.858207	10.85259	
02-02-2015 06	114	122	2195.5	0.3440	755.3	1.9516	4284.8	225.3	1.00	87.47	0.1255	275.5553	0.036737	3.3068	0.00776	104.9641	13.12052	
02-02-2015 07	123	131	2324.5	0.3890	904.2	1.9686	4576.1	238.5	1.00	92.61	0.1255	291.7748	0.038996	3.3068	0.007687	111.1315	13.89143	
02-02-2015 08	122	128	2291.1	0.3860	884.4	1.9696	4512.6	235.1	1.00	91.28	0.1255	287.5331	0.038337	3.3068	0.007576	109.5347	13.69183	
02-02-2015 09	128	134	2398.5	0.3700	887.4	1.9651	4713.2	246.1	1.00	95.56	0.1255	301.0118	0.040134	3.3068	0.007931	114.6583	14.33367	
02-02-2015 10	132	145	2636.3	0.3650	919.3	1.9635	4957.8	258.4	1.00	100.34	0.1255	316.0843	0.042144	3.3068	0.008328	120.4112	15.05139	
02-02-2015 11	133	148	2534.6	0.3610	915.0	1.9829	5020.9	260.0	1.00	100.98	0.1255	318.0923	0.042412	3.3068	0.008381	121.1761	15.14701	
02-02-2015 12	145	153	2680.9	0.3440	922.2	1.9890	5332.2	275.1	1.00	106.81	0.1255	336.5453	0.04486	3.3068	0.008387	128.1705	16.01313	
02-02-2015 13	158	165	2908.9	0.3520	1023.9	1.9840	5800.4	298.5	1.00	115.93	0.1255	365.067	0.048675	3.3068	0.009619	139.0709	17.36386	
02-02-2015 14	167	174	3086.8	0.3630	1120.5	1.9822	6182.0	316.7	1.00	122.98	0.1255	387.3934	0.051652	3.3068	0.010207	147.5761	18.44701	
02-02-2015 15	145	148	2636.3	0.3580	943.8	1.9757	5208.5	270.5	1.00	105.03	0.1255	330.8557	0.044113	3.3068	0.008718	126.0382	15.75478	
02-02-2015 16	138	150	2608.0	0.3570	931.1	1.9832	5185.3	267.6	1.00	103.90	0.1255	327.304	0.043664	3.3068	0.008624	124.6853	15.58566	
02-02-2015 17	160	167	2935.0	0.3370	989.1	1.9970	5861.2	301.1	1.00	116.93	0.1255	368.3425	0.049112	3.3068	0.009705	140.3187	17.55984	
02-02-2015 18	166	173	3051.0	0.3440	1049.5	2.0028	6110.6	313.0	1.00	121.55	0.1255	382.9005	0.051053	3.3068	0.010089	145.8645	18.23307	
02-02-2015 19	171	176	3106.6	0.20112	6251.5	1.9842	6181.7	318.9	1.00	123.84	0.1255	390.0917	0.052014	3.3068	0.010278	148.604	18.57555	
02-02-2015 20	172	175	3117.0	0.3590	6258.1	1.9907	4092.2	210.5	1.00	81.76	0.1255	257.5386	0.034438	3.3068	0.010307	149.0199	18.62749	
02-02-2015 21	111	114	2052.1	0.4000	820.8	1.9942	6271.3	319.0	1.00	123.87	0.1255	390.2046	0.052026	3.3068	0.010281	148.647	18.58088	
02-02-2015 22	161	163	2874.4	0.3590	1031.8	2.0182	5800.6	294.9	1.00	114.51	0.1255	360.6996	0.048093	3.3068	0.009504	137.4072	17.1759	
02-02-2015 23	136	133	2422.3	0.3380	939.9	1.9982	4840.3	248.5	1.00	87.46	0.1255	275.4976	0.036732	3.3068	0.007259	104.9498	13.11873	
02-02-2015 24	125	125	2266.8	0.3760	852.3	2.0107	4557.9	232.6	1.00	90.31	0.1255	284.4834	0.037951	3.3068	0.007496	108.3729	13.54661	
02-02-2015 25	139	142	2589.8	0.3480	901.3	1.9920	5158.9	265.7	1.00	103.18	0.1255	325.0199	0.040335	3.3068	0.008564	123.8151	15.47689	
02-02-2015 26	162	165	2960.8	0.3560	1054.0	2.0117	5956.3	303.8	1.00	117.96	0.1255	371.5804	0.049543	3.3068	0.009791	141.5522	17.69402	

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	Date/Hour	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack NOx Lbm/MBl	Common Stack NOx Lbm/Hr	Common Stack SO2 (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (lb/mmBtu)	Common Stack CO2 (lb/mmBtu)	Unit Operation (minutes)	Coal Cons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/mm)	HF (lb/hr)
02-03-2015 07	171	176	3081.6	0.3560	1097.0	2.0251	6240.4	316.2	1.00	122.77	0.1255	386.7408	0.051565	3.3068	0.01019	147.3275	18.41594
02-03-2015 08	171	176	3106.8	0.3530	1096.7	2.0108	6247.0	318.8	1.00	123.78	0.1255	389.9034	0.051986	3.3068	0.010273	148.5323	18.56653
02-03-2015 09	167	172	3016.0	0.3520	1061.6	2.0191	6089.4	309.4	1.00	120.16	0.1255	378.508	0.050467	3.3068	0.009973	144.1942	18.02339
02-03-2015 10	150	158	2715.6	0.3400	923.3	1.9947	5416.9	278.6	1.00	108.19	0.1255	340.3078	0.04544	3.3068	0.008938	129.8295	16.22839
02-03-2015 11	145	152	2631.5	0.3810	1002.6	1.9636	5180.4	270.0	1.00	104.84	0.1255	330.2533	0.044033	3.3068	0.008702	125.8088	15.7261
02-03-2015 12	124	135	2289.2	0.3920	897.4	1.9619	4491.1	234.9	1.00	91.20	0.1255	287.2946	0.038305	3.3068	0.00757	109.4438	13.68048
02-03-2015 13	123	131	2285.7	0.3800	868.6	1.5434	4442.1	234.5	1.00	91.06	0.1255	286.3554	0.038247	3.3068	0.007558	109.2765	13.65956
02-03-2015 14	108	112	1961.2	0.3960	776.6	1.9333	3791.6	201.2	1.00	78.14	0.1255	246.1306	0.032817	3.3068	0.006485	93.76255	11.72032
02-03-2015 15	98	101	1782.0	0.4000	712.8	1.9512	3477.1	182.8	1.00	71.00	0.1255	223.641	0.029818	3.3068	0.005593	85.19522	10.6494
02-03-2015 16	115	121	2106.3	0.3640	766.0	1.9520	4111.6	216.1	1.00	83.92	0.1255	264.3407	0.035245	3.3068	0.006996	100.6896	12.58745
02-03-2015 17	136	149	2510.1	0.3680	923.7	1.9683	4940.7	257.5	1.00	100.00	0.1255	315.0176	0.042002	3.3068	0.00683	120.0048	15.0006
02-03-2015 18	169	176	3005.1	0.3530	1060.8	1.9742	5932.7	308.3	1.00	119.73	0.1255	377.1401	0.050285	3.3068	0.009937	143.6701	17.95876
02-03-2015 19	170	176	2996.2	0.3510	1051.7	1.9841	5944.9	307.4	1.00	119.37	0.1255	376.0231	0.050136	3.3068	0.009908	143.2446	17.90558
02-03-2015 20	170	176	3007.1	0.3430	1031.4	1.9798	5953.5	308.5	1.00	119.80	0.1255	377.3811	0.050318	3.3068	0.009944	143.7657	17.91072
02-03-2015 21	170	176	3029.2	0.3550	1075.4	1.9824	6005.0	310.8	1.00	120.69	0.1255	380.1646	0.050588	3.3068	0.010017	144.8223	18.10279
02-03-2015 22	151	153	2630.4	0.3760	989.0	1.9801	5208.1	269.9	1.00	104.80	0.1255	330.1152	0.040415	3.3068	0.00868	125.7562	15.77952
02-03-2015 23	109	106	1924.0	0.3900	750.4	1.9391	3730.9	197.4	1.00	76.65	0.1255	241.462	0.032194	3.3068	0.006362	91.98406	11.49801
02-04-2015 00	98	106	1832.4	0.3520	645.0	1.9385	3552.1	188.0	1.00	73.00	0.1255	229.9662	0.030662	3.3068	0.006059	87.60478	10.95056
02-04-2015 01	98	105	1831.7	0.3500	641.1	1.9456	3563.7	187.9	1.00	72.98	0.1255	229.8784	0.03065	3.3068	0.006057	87.57131	10.94641
02-04-2015 02	98	99	1791.8	0.3510	628.9	1.9384	3473.3	183.8	1.00	71.39	0.1255	224.8709	0.029982	3.3068	0.005925	85.66375	10.70797
02-04-2015 03	98	99	1777.9	0.3550	631.2	1.9449	3457.9	182.4	1.00	70.83	0.1255	223.1265	0.02975	3.3068	0.005879	84.9992	10.6249
02-04-2015 04	98	99	1797.7	0.3460	622.0	1.9239	3458.6	184.4	1.00	71.62	0.1255	225.6114	0.030081	3.3068	0.005945	85.94582	10.74323
02-04-2015 05	118	122	2185.7	0.3730	815.3	1.9365	4232.6	224.3	1.00	87.08	0.1255	274.3054	0.036573	3.3068	0.00723	104.4936	13.06195
02-04-2015 06	158	161	2848.2	0.3820	1088.0	1.9583	5579.1	292.2	1.00	113.47	0.1255	357.4491	0.047659	3.3068	0.009418	136.1689	17.02112
02-04-2015 07	167	171	2954.6	0.3840	1134.6	1.9519	5767.2	303.1	1.00	117.71	0.1255	370.8023	0.04944	3.3068	0.00977	141.2558	17.65697
02-04-2015 08	158	164	2801.2	0.3600	1008.4	1.9410	5437.0	287.4	1.00	111.60	0.1255	351.5506	0.046873	3.3068	0.009268	133.9219	16.74024
02-04-2015 09	130	139	2368.8	0.3820	904.9	1.9299	4571.6	243.0	1.00	94.37	0.1255	297.2844	0.039637	3.3068	0.007833	113.2494	14.15618
02-04-2015 10	109	112	1991.0	0.4110	818.3	1.9137	3810.1	204.3	1.00	79.32	0.1255	249.8705	0.033316	3.3068	0.006534	95.38725	11.38841
02-04-2015 11	99	100	1810.5	0.4180	756.8	1.8965	3433.7	185.8	1.00	72.13	0.1255	227.2178	0.030295	3.3068	0.005967	86.55777	10.83972
02-04-2015 12	99	100	1817.8	0.4040	734.4	1.8942	3443.2	186.5	1.00	74.42	0.1255	228.1339	0.030417	3.3068	0.006161	86.305677	10.86335
02-04-2015 13	100	100	1822.4	0.4020	732.6	1.8932	3450.7	187.0	1.00	72.61	0.1255	228.7112	0.030494	3.3068	0.006026	87.12669	10.89084
02-04-2015 14	99	100	1808.9	0.4050	732.6	1.9111	3456.9	185.6	1.00	72.07	0.1255	227.0117	0.030268	3.3068	0.006057	86.48127	10.81016
02-04-2015 15	99	100	1812.7	0.4060	735.0	1.9018	3447.4	186.0	1.00	72.22	0.1255	227.4939	0.030332	3.3068	0.005984	86.66295	10.83287
02-04-2015 16	99	100	1794.6	0.4100	735.8	1.9080	3424.1	184.1	1.00	71.50	0.1255	225.2223	0.030029	3.3068	0.005944	85.79761	10.7247
02-04-2015 17	105	109	1930.7	0.3870	747.2	1.9052	3678.4	198.1	1.00	76.92	0.1255	242.3029	0.031503	3.3068	0.00634	92.30438	11.2512
02-04-2015 18	125	135	2323.0	0.3580	854.9	1.9032	4421.2	238.3	1.00	92.55	0.1255	229.8784	0.03065	3.3068	0.006057	87.57131	10.94641
02-04-2015 19	125	134	2303.4	0.3740	861.5	1.9023	4381.7	236.3	1.00	91.77	0.1255	289.0767	0.038543	3.3068	0.007617	10.1227	13.7534
02-04-2015 20	123	131	2257.9	0.3730	842.2	1.9064	4304.4	231.7	1.00	89.96	0.1255	283.3665	0.037782	3.3068	0.007466	107.9474	13.49343
02-04-2015 21	116	122	2110.5	0.3790	799.9	1.9114	4034.0	216.5	1.00	84.08	0.1255	264.8678	0.035315	3.3068	0.006979	100.9004	12.61255
02-04-2015 22	103	107	1882.7	0.3420	643.9	1.8939	3565.7	193.2	1.00	75.01	0.1255	236.2789	0.031503	3.3068	0.006226	90.00956	11.2512
02-04-2015 23	99	103	1831.7	0.3370	617.3	1.8867	3455.8	187.9	1.00	72.98	0.1255	226.6781	0.030223	3.3068	0.006057	88.12669	10.88247
02-05-2015 00	99	100	1806.2	0.3370	608.7	1.8782	3392.4	185.3	1.00	71.96	0.1255	225.3103	0.030041	3.3068	0.005937	85.33108	10.72888
02-05-2015 01	98	100	1795.3	0.3430	615.8	1.8890	3391.4	184.2	1.00	71.53	0.1255	226.2012	0.030116	3.3068	0.005926	86.17052	10.77131
02-05-2015 02	99	100	1802.4	0.3390	611.0	1.8848	3397.1	184.9	1.00	71.81	0.1255	231.4597	0.030861	3.3068	0.006059	88.17371	11.02171
02-05-2015 03	103	100	1844.3	0.3270	603.1	1.8861	3478.5	189.2	1.00	73.48	0.1255	227.2429	0.030299	3.3068	0.005988	86.56733	10.82092
02-05-2015 04	98	100	1810.7	0.3370	610.2	1.8713	3383.4	185.8	1.00	72.14	0.1255	226.6781	0.030223	3.3068	0.005988	86.56733	10.82092
02-05-2015 05	106	111	1981.1	0.3290	651.8	1.8897	3743.7	203.3	1.00	78.93	0.1255	248.6281	0.03315	3.3068	0.006551	94.71394	11.83924

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Start Date	End Date	Day/Hour	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx (lb/hr)	Common Stack SO2 (lb/MMBtu)	Common Stack CO2 (t/hr)	Common Stack CO2 (tons/hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/MMBtu)	Mercury (lb/hr)	HF (lb/hr)
02-05-2015	06	138	141	2494.3	0.3740	932.9	1.9197	4788.3	255.9	100	99.37	0.1255	313.0347	0.041737	3.3068	0.008348	119.2494
02-05-2015	07	148	151	2639.4	0.3900	1029.4	1.9379	5114.9	270.8	100	105.16	0.1255	331.2447	0.044165	3.3068	0.008782	126.1865
02-05-2015	08	127	136	2372.5	0.4250	1008.3	1.9133	4539.3	243.4	100	94.52	0.1255	297.7488	0.039699	3.3068	0.007845	113.4263
02-05-2015	09	135	147	2518.4	0.4090	1030.0	1.9285	4856.7	258.4	100	100.33	0.1255	316.0592	0.042141	3.3068	0.008328	120.4016
02-05-2015	10	162	162	2885.3	0.3650	1053.1	1.9425	5604.8	296.0	100	114.95	0.1255	362.1052	0.04828	3.3068	0.009541	137.9426
02-05-2015	11	168	170	3015.3	0.3590	1082.5	1.9457	5867.0	309.4	100	120.13	0.1255	378.4202	0.050455	3.3068	0.009971	144.1578
02-05-2015	12	158	164	2851.6	0.3680	1049.4	1.9425	5539.3	292.6	100	113.61	0.1255	357.8758	0.047716	3.3068	0.00943	136.3315
02-05-2015	13	145	150	2594.1	0.3790	983.2	1.9391	5030.3	266.2	100	103.35	0.1255	325.5596	0.043407	3.3068	0.008578	124.0207
02-05-2015	14	129	136	2344.7	0.3930	921.5	1.9406	4550.2	240.6	100	93.41	0.1255	294.2599	0.039234	3.3068	0.007753	112.0972
02-05-2015	15	155	123	2291.6	0.3810	873.1	1.9393	4444.2	235.1	100	91.30	0.1255	287.5958	0.038345	3.3068	0.007578	109.5586
02-05-2015	16	120	2210.4	0.3890	859.8	1.9515	4313.6	226.8	100	88.06	0.1255	277.4052	0.036987	3.3068	0.007309	105.6765	
02-05-2015	17	145	160	2718.8	0.3800	1033.1	1.9631	5337.2	279.0	100	108.32	0.1255	341.2094	0.045494	3.3068	0.00889	129.9825
02-05-2015	18	163	171	2962.6	0.3710	1099.1	1.9739	5848.0	304.0	100	118.03	0.1255	371.8063	0.049573	3.3068	0.009797	141.5382
02-05-2015	19	169	175	3046.3	0.3710	1130.2	1.9793	6029.6	312.5	100	121.37	0.1255	382.3107	0.050974	3.3068	0.010073	145.6338
02-05-2015	20	170	175	3052.8	0.3810	1163.1	1.9787	6040.6	313.2	100	121.63	0.1255	383.1264	0.051083	3.3068	0.010053	145.9506
02-05-2015	21	170	175	3040.1	0.3740	1137.0	1.9836	6030.2	311.9	100	121.12	0.1255	381.5326	0.050587	3.3068	0.010053	145.3434
02-05-2015	22	170	176	3063.8	0.3690	1130.5	1.9715	6040.3	314.3	100	122.06	0.1255	384.2094	0.051667	3.3068	0.010131	146.4765
02-05-2015	23	164	169	2921.5	0.3760	1098.5	1.9941	5825.7	299.8	100	116.39	0.1255	366.6483	0.048386	3.3068	0.009661	139.6733
02-06-2015	00	132	149	2488.7	0.3500	970.6	1.9935	4951.2	255.3	100	99.15	0.1255	312.3319	0.041644	3.3068	0.00843	118.9817
02-06-2015	01	159	169	2910.4	0.3530	1027.4	2.0002	5821.4	298.6	100	115.95	0.1255	365.2552	0.0487	3.3068	0.009624	139.1426
02-06-2015	02	170	161	2926.4	0.3570	1074.0	2.0107	5884.2	300.3	100	116.59	0.1255	367.2632	0.048688	3.3068	0.009677	139.9076
02-06-2015	03	170	173	3026.7	0.3530	1068.4	2.0307	6146.2	310.5	100	120.59	0.1255	384.7859	0.050646	3.3068	0.010131	144.7028
02-06-2015	04	161	164	2877.2	0.3510	1009.9	2.0442	5881.5	295.2	100	114.63	0.1255	361.0866	0.048144	3.3068	0.009514	137.5554
02-06-2015	05	165	169	2957.1	0.3450	1020.2	2.0306	6004.7	303.4	100	117.81	0.1255	371.1161	0.049481	3.3068	0.009778	141.3753
02-06-2015	06	171	174	3056.1	0.3560	1088.0	2.0492	5625.2	313.6	100	121.76	0.1255	383.5406	0.051138	3.3068	0.010106	146.1084
02-06-2015	07	171	176	3061.9	0.3460	1059.4	2.0336	6226.8	314.2	100	121.99	0.1255	384.2685	0.051235	3.3068	0.010125	146.3857
02-06-2015	08	171	177	3071.6	0.3490	1072.0	2.0064	6162.9	315.1	100	122.37	0.1255	385.4858	0.051387	3.3068	0.010157	146.8494
02-06-2015	09	171	176	3051.7	0.3500	1068.1	2.0267	6185.0	313.1	100	121.58	0.1255	361.2376	0.048223	3.3068	0.009516	135.3618
02-06-2015	10	167	174	3001.0	0.3510	1053.4	2.0330	6101.1	307.9	100	119.56	0.1255	376.9884	0.051054	3.3068	0.009778	143.7527
02-06-2015	11	160	170	2929.9	0.3370	978.3	2.0196	5862.8	297.8	100	115.65	0.1255	364.3134	0.048574	3.3068	0.009589	137.3942
02-06-2015	12	155	2737.1	0.3320	903.2	2.0418	5588.7	280.8	100	109.05	0.1255	343.5061	0.040558	3.3068	0.009051	130.8574	
02-06-2015	13	161	168	2881.9	0.3380	974.1	2.0310	5853.1	295.7	100	114.82	0.1255	361.6785	0.048223	3.3068	0.00953	137.7801
02-06-2015	14	129	133	2301.4	0.3310	876.8	2.0388	4692.1	236.1	100	91.69	0.1255	288.3257	0.038569	3.3068	0.007651	110.0271
02-06-2015	15	108	122	2058.7	0.3610	743.2	2.0179	4154.2	211.2	100	82.02	0.1255	258.3669	0.034448	3.3068	0.009214	143.4741
02-06-2015	16	144	154	2635.5	0.3231	930.3	2.0306	5868.3	236.3	100	91.76	0.1255	330.7553	0.048574	3.3068	0.009589	138.7841
02-06-2015	17	132	145	3075.0	0.3750	922.8	2.0387	5016.8	252.5	100	98.04	0.1255	308.8304	0.041177	3.3068	0.008137	137.6478
02-06-2015	18	162	169	2901.9	0.3430	995.4	2.0448	5933.8	297.7	100	115.61	0.1255	364.1385	0.048558	3.3068	0.009596	138.7363
02-06-2015	19	160	166	2869.5	0.3460	992.8	2.0336	5835.5	294.4	100	114.32	0.1255	360.1223	0.048016	3.3068	0.009489	137.1873
02-06-2015	20	155	165	2798.1	0.3550	987.7	2.0431	5716.9	287.1	100	111.48	0.1255	351.1616	0.046821	3.3068	0.009253	133.7737
02-06-2015	21	144	154	2635.5	0.3350	930.3	2.0306	5851.7	270.4	100	105.00	0.1255	330.7553	0.0441	3.3068	0.008745	126
02-06-2015	22	140	151	2567.3	0.3620	929.4	2.0389	5234.5	263.4	100	102.28	0.1255	322.1962	0.042959	3.3068	0.008488	122.7394
02-06-2015	23	106	109	1928.1	0.3700	713.4	2.0126	3880.4	197.8	100	78.82	0.1255	241.9766	0.032263	3.3068	0.006376	92.18008
02-07-2015	00	98	104	1354.0	0.3230	2.0129	3684.6	187.8	100	72.93	0.1255	229.7727	0.030653	3.3068	0.005139	10.9394	
02-07-2015	01	101	1804.5	0.3490	629.8	2.0205	3646.0	185.1	100	71.89	0.1255	226.4648	0.030195	3.3068	0.005967	86.27092	
02-07-2015	02	99	106	1865.3	0.3410	636.1	2.0056	3741.1	191.4	100	74.31	0.1255	234.0952	0.031212	3.3068	0.006168	89.17769
02-07-2015	03	99	99	1805.8	0.3400	614.0	2.0043	3619.3	185.3	100	71.94	0.1255	226.6279	0.030217	3.3068	0.005971	86.33307
02-07-2015	04	100	100	1814.3	0.3400	616.9	2.0066	3640.5	186.1	100	72.28	0.1255	227.6947	0.030359	3.3068	0.005999	86.75944

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Date/Time	Date/Hour	Y01 Gross Load Mw Value	Y02 Gross Load Mw Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lbm/MW	Common Stack SO2 (Lbm/MW)	Common Stack CO2 (Lbm/MW)	Common Stack CO2 (tNm3/h)	Common Stack Unit Operation (minutes)	Cool Tower Hr	PM-10 (tNm3/h)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/day)	HF (lb/hr)
02-07-2015 05	106	113	1975.1	0.3220	636.3	2.0123	3976.5	202.7	100	78.73	0.1255	248.0006	0.030366	3.3068	0.0066335	94.4749
02-07-2015 06	102	109	1912.3	0.3430	655.9	2.0106	3844.8	196.2	100	76.19	0.1255	239.9937	0.031599	3.3068	0.0066324	91.4247
02-07-2015 07	110	120	2073.5	0.3350	694.6	2.0078	4163.1	212.7	100	82.61	0.1255	260.2243	0.034696	3.3068	0.0066352	99.13147
02-07-2015 08	125	138	2362.8	0.3430	810.4	2.0171	4765.9	242.4	100	94.14	0.1255	296.5514	0.039537	3.3068	0.0078513	112.9675
02-07-2015 09	150	155	2824.3	0.3490	986.4	2.0173	5701.6	290.0	100	112.60	0.1255	354.7007	0.047793	3.3068	0.009546	135.1219
02-07-2015 10	148	150	2635.6	0.3600	948.8	2.0831	5358.4	270.4	100	105.00	0.1255	330.7678	0.044102	3.3068	0.008715	126.0048
02-07-2015 11	102	126	2072.0	0.4050	839.2	1.9950	4133.7	212.6	100	82.55	0.1255	260.036	0.034671	3.3068	0.0066352	99.05976
02-07-2015 12	95	114	1920.7	0.3880	745.2	1.9860	3814.6	197.1	100	76.52	0.1255	241.0479	0.032139	3.3068	0.0066351	91.82629
02-07-2015 13	93	101	1808.8	0.4050	732.6	1.9794	3580.4	185.6	100	72.06	0.1255	227.0044	0.030267	3.3068	0.005981	86.47649
02-07-2015 14	93	102	1802.8	0.4060	731.9	1.9809	3571.1	185.0	100	71.82	0.1255	226.2514	0.030166	3.3068	0.005981	86.18964
02-07-2015 15	94	101	1782.8	0.4300	766.6	1.9928	3552.7	182.9	100	71.03	0.1255	223.7414	0.029832	3.3068	0.005895	85.23347
02-07-2015 16	93	106	1811.7	0.4380	793.5	2.0006	3624.4	185.9	100	72.18	0.1255	227.3584	0.030315	3.3068	0.005981	86.15154
02-07-2015 17	93	101	1784.6	0.4360	778.1	1.9895	3550.4	183.1	100	71.10	0.1255	223.9673	0.029862	3.3068	0.005901	85.31952
02-07-2015 18	115	129	2204.1	0.4050	892.7	1.9975	4402.6	226.1	100	87.81	0.1255	276.6146	0.036881	3.3068	0.007288	105.3753
02-07-2015 19	110	102	1933.1	0.4330	837.0	1.9927	3352.0	198.3	100	77.02	0.1255	242.6041	0.032347	3.3068	0.006392	92.41912
02-07-2015 20	98	101	1820.8	0.3890	708.3	1.9937	3630.1	186.8	100	72.54	0.1255	286.5104	0.030468	3.3068	0.006022	87.0502
02-07-2015 21	98	105	1841.1	0.3820	703.3	2.0033	3688.2	188.9	100	73.35	0.1255	231.0581	0.030807	3.3068	0.006088	88.02072
02-07-2015 22	98	100	1797.5	0.3720	668.7	1.9939	3584.9	184.4	100	71.61	0.1255	225.5963	0.030078	3.3068	0.005944	85.39625
02-07-2015 23	98	100	1808.0	0.3450	623.8	1.9847	3606.5	185.5	100	72.03	0.1255	226.904	0.030253	3.3068	0.005979	86.43825
02-08-2015 00	98	100	1821.1	0.3400	619.2	1.9955	3634.0	186.8	100	72.55	0.1255	228.5481	0.030473	3.3068	0.006022	87.06454
02-08-2015 01	97	100	1787.3	0.3530	630.9	1.9989	3572.7	183.4	100	71.21	0.1255	224.3062	0.029907	3.3068	0.00551	85.44861
02-08-2015 02	98	100	1824.0	0.3480	634.8	1.9862	3622.8	187.1	100	72.67	0.1255	228.912	0.030521	3.3068	0.006032	87.20319
02-08-2015 03	98	99	1786.1	0.3550	634.1	1.9863	3547.7	183.2	100	71.16	0.1255	224.1556	0.029887	3.3068	0.005986	85.39124
02-08-2015 04	98	100	1794.8	0.3580	642.5	1.9801	3553.8	184.1	100	71.51	0.1255	225.2474	0.030033	3.3068	0.005935	85.80717
02-08-2015 05	98	99	1784.6	0.3570	637.1	1.9795	3532.6	183.1	100	71.10	0.1255	223.9673	0.029862	3.3068	0.005901	85.31952
02-08-2015 06	97	100	1788.0	0.3520	647.3	1.9918	3551.4	183.4	100	71.24	0.1255	224.394	0.029949	3.3068	0.005913	85.48207
02-08-2015 07	98	100	1790.3	0.3600	644.5	1.9889	3562.5	183.7	100	71.33	0.1255	224.6827	0.029957	3.3068	0.00502	85.59203
02-08-2015 08	97	100	1780.0	0.3330	628.3	1.9919	3545.6	182.6	100	70.92	0.1255	223.39	0.029785	3.3068	0.005886	85.0996
02-08-2015 09	98	100	1806.4	0.3470	626.8	1.9850	3577.4	185.3	100	71.97	0.1255	226.7032	0.030227	3.3068	0.005973	86.36175
02-08-2015 10	98	101	1824.6	0.3470	633.1	1.9854	3622.5	187.2	100	72.69	0.1255	228.9873	0.030531	3.3068	0.006034	87.23187
02-08-2015 11	98	104	1824.7	0.3510	641.2	1.9820	3638.8	187.4	100	72.78	0.1255	229.2509	0.030566	3.3068	0.00604	87.33227
02-08-2015 12	98	100	1796.8	0.3490	627.1	1.9867	3569.7	184.4	100	71.59	0.1255	225.4984	0.030066	3.3068	0.005942	85.90279
02-08-2015 13	98	100	1789.4	0.3510	628.1	1.9843	3550.7	183.6	100	71.29	0.1255	224.5897	0.029942	3.3068	0.005917	85.549
02-08-2015 14	97	100	1790.8	0.3480	623.2	1.9823	3549.9	183.7	100	71.35	0.1255	224.7454	0.029966	3.3068	0.005922	85.61594
02-08-2015 15	97	100	1786.1	0.3480	621.6	1.9844	3544.3	183.3	100	71.16	0.1255	224.1556	0.029887	3.3068	0.005906	85.39124
02-08-2015 16	97	100	1793.9	0.3520	629.7	1.9804	3552.6	184.1	100	71.47	0.1255	225.1345	0.030017	3.3068	0.006018	85.76414
02-08-2015 17	97	100	1792.6	0.3490	625.6	1.9830	3567.0	183.9	100	71.42	0.1255	224.9713	0.029966	3.3068	0.005928	85.70199
02-08-2015 18	97	100	1794.2	0.3490	626.2	1.9770	3547.2	184.1	100	71.48	0.1255	225.1721	0.030022	3.3068	0.005933	85.77849
02-08-2015 19	97	100	1791.5	0.3500	627.0	1.9853	3556.7	183.8	100	71.37	0.1255	224.8333	0.029977	3.3068	0.005924	85.6494
02-08-2015 20	98	101	1801.8	0.3490	628.8	1.9820	3589.2	184.9	100	71.78	0.1255	226.1259	0.030115	3.3068	0.005958	86.14183
02-08-2015 21	98	103	1820.0	0.3460	629.7	1.9883	3618.7	186.7	100	72.51	0.1255	228.41	0.030454	3.3068	0.006018	87.01195
02-08-2015 22	98	100	1792.2	0.3480	623.7	1.9903	3567.0	183.9	100	71.40	0.1255	224.9211	0.029989	3.3068	0.005946	85.68287
02-08-2015 23	98	100	1795.2	0.3490	626.5	1.9817	3557.6	184.2	100	71.52	0.1255	225.2976	0.030029	3.3068	0.005936	85.77829
02-08-2015 24	97	99	1791.0	0.3490	625.1	1.9857	3556.4	183.8	100	71.35	0.1255	224.7705	0.029969	3.3068	0.005922	85.6255
02-08-2015 25	98	100	1791.1	0.3460	619.7	1.9867	3558.4	183.8	100	71.36	0.1255	224.7831	0.029971	3.3068	0.005923	85.63028
02-08-2015 26	98	100	1799.0	0.3420	615.3	1.9830	3585.4	184.6	100	71.67	0.1255	225.7745	0.030103	3.3068	0.005949	86.00797
02-08-2015 27	97	100	1796.6	0.3450	619.8	1.9830	3580.6	184.3	100	71.58	0.1255	225.4733	0.030063	3.3068	0.005941	85.85323

Dominion Energy - Yortdown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	Date/Hour	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack NOx Lb/MWh	Common Stack NOx Lb/MWh	Common Stack SO2 (lb/MWh)	Common Stack SO2 (lb/MWh)	Common Stack CO2 (ton/Hr)	Common Stack CO2 (ton/Hr)	Unit Operation (minutes)	Unit Operation (minutes)	PM-10 (lb/mth)	PM-10 (lb/mth)	Lead (lb/mth)	Lead (lb/mth)	Mercury (lb/mth)	Mercury (lb/mth)	HCl (lb/mth)	HCl (lb/mth)	HF (lb/mth)	HF (lb/mth)
02-09-2015 04	98	100	1795.4	0.3430	615.8	1.9963	3584.2	184.2	100	71.53	0.1255	225.3227	0.030043	3.3068	0.005937	85.83586	10.72948				
02-09-2015 05	98	100	1795.3	0.3370	606.4	1.9734	3550.7	184.6	100	71.69	0.1255	225.8122	0.030108	3.3068	0.005959	86.02231	10.75279				
02-09-2015 06	109	119	2084.3	0.3240	675.3	1.9965	4161.4	213.9	100	83.04	0.1255	261.5797	0.034877	3.3068	0.006692	99.54781	12.45598				
02-09-2015 07	120	127	2241.8	0.3790	849.6	2.0023	4488.7	230.0	100	89.31	0.1255	281.3459	0.037512	3.3068	0.007413	107.1777	13.39721				
02-09-2015 08	126	130	2291.0	0.3870	886.6	2.0022	4587.1	235.1	100	91.27	0.1255	287.5205	0.036335	3.3068	0.007576	109.5299	13.69124				
02-09-2015 09	127	148	2473.3	0.4010	991.8	2.0049	4958.6	253.8	100	98.54	0.1255	310.3992	0.041386	3.3068	0.008179	118.2454	14.78068				
02-09-2015 10	127	146	2453.0	0.3890	954.2	1.9850	4869.2	251.7	100	97.73	0.1255	307.8515	0.041046	3.3068	0.008112	117.2749	14.65936				
02-09-2015 11	126	145	2449.9	0.3780	926.1	1.9882	4870.8	251.4	100	97.61	0.1255	307.4625	0.040994	3.3068	0.008101	117.1267	14.64084				
02-09-2015 12	127	131	2320.7	0.3770	874.9	1.9972	4634.9	238.1	100	92.46	0.1255	291.2479	0.038332	3.3068	0.007674	110.9498	13.86873				
02-09-2015 13	125	102	2072.8	0.4060	841.6	1.9766	4097.2	212.7	100	82.58	0.1255	260.1364	0.034684	3.3068	0.006654	99.09801	12.38725				
02-09-2015 14	120	101	2095.8	0.4050	813.8	1.9867	3992.2	206.2	100	80.06	0.1255	252.1923	0.033625	3.3068	0.006645	96.07171	12.00895				
02-09-2015 15	108	112	1997.3	0.3650	729.0	1.9803	3955.3	204.9	100	79.57	0.1255	250.6612	0.033421	3.3068	0.006650	95.48845	11.93606				
02-09-2015 16	102	109	1921.9	0.3610	693.8	1.9753	3796.4	197.2	100	76.57	0.1255	241.1985	0.032159	3.3068	0.006355	91.88367	11.48546				
02-09-2015 17	128	105	2126.8	0.3660	778.4	1.9576	4163.5	218.2	100	84.73	0.1255	266.9134	0.035588	3.3068	0.007033	101.6797	12.70996				
02-09-2015 18	134	118	2267.3	0.3760	852.5	1.9592	4442.1	232.6	100	90.33	0.1255	284.5462	0.037399	3.3068	0.007497	108.3968	13.54946				
02-09-2015 19	134	130	2380.6	0.3610	859.4	1.9444	4628.8	244.2	100	94.84	0.1255	298.7653	0.039835	3.3068	0.007872	113.8135	14.22669				
02-09-2015 20	147	140	2509.5	0.3440	891.1	1.9370	5017.7	265.8	100	103.21	0.1255	325.1078	0.043347	3.3068	0.00856	123.8486	15.48108				
02-09-2015 21	143	159	2695.1	0.3600	970.2	1.9394	5226.9	276.5	100	107.37	0.1255	338.2351	0.045097	3.3068	0.008912	128.8494	16.10618				
02-09-2015 22	115	118	2085.1	0.4020	833.2	1.9212	4005.8	213.9	100	83.07	0.1255	261.6801	0.034849	3.3068	0.006835	99.68606	12.46076				
02-09-2015 23	102	107	1890.5	0.3940	744.9	1.9395	3573.9	194.0	100	75.32	0.1255	237.2578	0.031634	3.3068	0.006251	90.58247	11.29781				
02-10-2015 00	100	103	1850.2	0.3870	716.0	1.8824	3482.8	189.8	100	73.71	0.1255	232.2001	0.03096	3.3068	0.006118	88.45578	11.05697				
02-10-2015 01	102	105	1891.8	0.3670	694.3	1.8702	3538.0	194.1	100	75.37	0.1255	237.4209	0.031656	3.3068	0.006256	90.44462	11.30558				
02-10-2015 02	99	101	1844.6	0.38310	702.8	1.86800	3431.0	189.3	100	73.49	0.1255	231.4973	0.030866	3.3068	0.006361	88.18805	11.03531				
02-10-2015 03	103	108	1936.7	0.3630	705.0	1.8600	3602.0	198.7	100	71.16	0.1255	243.0559	0.032407	3.3068	0.006404	92.59124	11.5739				
02-10-2015 04	99	105	1878.8	0.3790	712.1	1.8505	3476.8	192.8	100	74.85	0.1255	235.7894	0.031438	3.3068	0.006243	89.82311	11.22789				
02-10-2015 05	109	120	2083.9	0.3540	737.7	1.8369	3828.0	213.8	100	83.02	0.1255	261.5295	0.034867	3.3068	0.006831	99.62869	12.45359				
02-10-2015 06	144	160	2746.1	0.3700	1016.1	1.86802	5163.3	281.7	100	109.41	0.1255	344.6356	0.045951	3.3068	0.009081	131.2876	16.41096				
02-10-2015 07	170	176	3077.3	0.3980	1224.8	1.8794	5783.5	315.7	100	122.60	0.1255	386.2012	0.051493	3.3068	0.010176	147.1219	18.39024				
02-10-2015 08	156	174	2923.4	0.3730	1090.4	1.8730	5475.6	299.9	100	116.47	0.1255	366.8867	0.048917	3.3068	0.006667	139.7641	17.47052				
02-10-2015 09	153	153	30440	0.3440	939.4	1.8629	5087.4	280.2	100	108.80	0.1255	342.7278	0.045696	3.3068	0.006938	130.561	16.32012				
02-10-2015 10	167	171	30200	0.3600	1087.5	1.8622	5625.5	309.9	100	120.35	0.1255	251.8566	0.039582	3.3068	0.006636	95.94741	11.99343				
02-10-2015 11	169	173	3030.9	0.3640	1103.2	1.8568	5627.7	311.0	100	120.75	0.1255	379.123	0.050549	3.3068	0.009989	144.4255	18.05319				
02-10-2015 12	149	145	2612.0	0.3280	856.7	1.8651	4866.3	268.0	100	104.06	0.1255	380.378	0.050716	3.3068	0.010222	144.9036	18.11295				
02-10-2015 13	136	144	2506.8	0.3360	842.3	1.8750	4700.2	257.2	100	99.87	0.1255	314.6034	0.041946	3.3068	0.008289	119.847	14.98088				
02-10-2015 14	106	116	2006.9	0.3300	662.3	1.8622	5373.7	205.9	100	79.96	0.1249	342.7876	0.045596	3.3068	0.009386	134.9833	16.87291				
02-10-2015 15	99	102	1846.4	0.3070	566.8	1.8389	5395.4	189.4	100	73.56	0.1255	251.7323	0.030898	3.3068	0.006106	88.2741	17.04741				
02-10-2015 16	101	101	1862.2	0.2950	549.3	1.8381	5424.8	191.1	100	74.19	0.1255	233.7061	0.031116	3.3068	0.006158	89.02948	11.12869				
02-10-2015 17	130	117	2254.4	0.3060	689.8	1.8796	4237.4	231.3	100	89.82	0.1255	282.9272	0.037723	3.3068	0.007455	107.7801	13.47251				
02-10-2015 18	157	164	2863.8	0.3450	988.0	1.8852	5298.9	293.8	100	114.10	0.1255	359.4069	0.04792	3.3068	0.009447	135.9147	17.11434				
02-10-2015 19	148	167	2823.4	0.3460	976.9	1.8764	5297.7	289.7	100	112.49	0.1255	354.3367	0.047244	3.3068	0.009386	134.9833	16.87291				
02-10-2015 20	148	170	2852.6	0.3430	978.4	1.8773	5355.3	292.7	100	113.65	0.1255	358.0013	0.047733	3.3068	0.009433	136.3793	17.04741				
02-10-2015 21	150	156	2732.1	0.3450	942.6	1.8830	5344.6	280.3	100	108.85	0.1255	342.8786	0.045746	3.3068	0.007054	130.6183	16.32729				
02-10-2015 22	107	116	2017.4	0.3570	720.2	1.8542	3740.7	207.0	100	80.37	0.1255	253.1837	0.039357	3.3068	0.006671	96.4494	12.05618				
02-10-2015 23	99	104	1855.3	0.3370	625.2	1.8509	3433.9	190.3	100	73.92	0.1255	232.8402	0.031045	3.3068	0.006135	88.6996	11.08745				
02-11-2015 00	95	102	1828.8	0.3310	605.3	1.8315	3386.0	187.6	100	72.86	0.1255	229.5144	0.030501	3.3068	0.006047	87.48257	10.92908				
02-11-2015 01	94	119	1964.5	0.3310	650.2	1.8496	3633.5	201.6	100	78.27	0.1255	246.5548	0.032872	3.3068	0.006496	93.92032	11.74004				
02-11-2015 02	107	96	1886.0	0.3190	601.6	1.8677	3522.5	193.5	100	75.14	0.1255	236.693	0.031559	3.3068	0.006237	90.16733	11.27092				

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Houly Mass Emissions
January 1, 2015 through November 26, 2017

Date/Hour	Y103 Gross Load MW Value	Y103 Heat Input (MMBtu)	Common Stack NOx Lb/Hr	Common Stack NOx Lb/MMBtu	Common Stack CO2 (Lb/MMBtu)	Common Stack SCF (Lb/MMBtu)	Common Stack CO2 (Ton/Hr)	Unit Operation (minutes)	CoalitionShare	PM-10 (lb/tonhr)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/tonhr)	HF (lb/hr)	HF (lb/tonhr)	
02-11-2015 03	110	98	1940.6	0.3250	620.9	1.8933	3617.4	.996.0	.00	76.12	0.1255	239.7803	0.03197	3.5068	0.006318	91.34343	114.1793
02-11-2015 04	109	99	1980.4	0.3190	615.8	1.8895	3666.8	198.1	1.00	76.91	0.1255	242.2652	0.032302	3.3068	0.006383	92.2904	111.53625
02-11-2015 05	118	125	2221.6	0.3250	724.2	1.9247	4275.9	227.9	1.00	88.51	0.1255	278.8108	0.037174	3.3068	0.007346	106.212	13.27649
02-11-2015 06	159	173	2975.6	0.3630	1080.1	1.9467	5792.7	305.3	1.00	118.55	0.1255	373.4376	0.049791	3.3068	0.009984	142.2598	17.78247
02-11-2015 07	165	176	3052.9	0.3920	1200.7	1.9440	5954.4	314.3	1.00	122.03	0.1255	384.394	0.051252	3.3068	0.010128	146.4335	18.30418
02-11-2015 08	164	176	3037.1	0.3880	1178.4	1.9569	5943.2	311.6	1.00	121.00	0.1255	381.1561	0.05082	3.3068	0.010043	145.2	18.15
02-11-2015 09	151	174	2890.6	0.3780	1092.6	1.9674	5687.1	296.6	1.00	115.16	0.1255	362.7703	0.048369	3.3068	0.009559	138.196	17.2745
02-11-2015 10	132	147	2499.4	0.4150	1037.3	1.9579	4889.6	256.4	1.00	99.58	0.1255	313.6747	0.041823	3.3068	0.008265	119.4932	14.93665
02-11-2015 11	124	141	2371.8	0.4240	1005.6	1.9451	4613.4	243.3	1.00	94.49	0.1255	297.6609	0.039687	3.3068	0.007843	113.3928	14.1741
02-11-2015 12	123	140	2372.8	0.3870	918.3	1.9457	4616.7	243.4	1.00	94.53	0.1255	297.7864	0.039704	3.3068	0.007846	113.4406	14.18008
02-11-2015 13	94	106	1833.1	0.3140	575.6	1.9213	3522.5	188.1	1.00	73.03	0.1255	230.0541	0.030673	3.3068	0.006062	87.9036	10.95478
02-11-2015 14	76	100	1650.4	0.2550	420.9	1.9213	3154.4	169.3	1.00	65.75	0.1255	207.1252	0.027616	3.3068	0.005457	78.90359	9.862948
02-11-2015 15	79	103	1703.8	0.2370	403.8	1.9259	3281.3	174.8	1.00	67.88	0.1255	213.8269	0.028251	3.3068	0.005634	81.45657	10.18207
02-11-2015 16	112	131	2255.3	0.2840	640.5	1.9962	4502.1	231.4	1.00	89.85	0.1255	283.0402	0.037738	3.3068	0.007458	107.8231	13.47789
02-11-2015 17	125	139	2418.1	0.3540	856.0	1.9942	4822.2	248.1	1.00	96.34	0.1255	303.4716	0.040462	3.3068	0.007956	115.6064	14.4508
02-11-2015 18	133	161	2632.5	0.3400	895.1	2.0161	5307.3	270.1	1.00	104.88	0.1255	330.3788	0.044051	3.3068	0.008215	125.8566	15.73207
02-11-2015 19	140	170	2761.9	0.3320	917.0	2.0399	5633.9	283.4	1.00	110.04	0.1255	346.6185	0.046215	3.3068	0.009133	132.043	16.50538
02-11-2015 20	137	162	2683.0	0.3340	896.1	2.0327	5453.8	275.3	1.00	106.89	0.1255	336.7165	0.044895	3.3068	0.008877	128.2709	16.630386
02-11-2015 21	135	150	2549.1	0.3260	831.0	2.0530	5233.2	261.5	1.00	101.56	0.1255	319.9121	0.042654	3.3068	0.008429	121.8693	15.23367
02-11-2015 22	127	127	2287.3	0.3400	777.7	2.0556	4701.8	234.7	1.00	91.13	0.1255	287.0562	0.038274	3.3068	0.007564	109.353	13.66912
02-11-2015 23	126	119	2219.9	0.3360	745.9	2.0686	4592.0	227.8	1.00	88.44	0.1255	278.5975	0.037146	3.3068	0.007541	106.1307	13.26633
02-12-2015 00	112	122	2036.5	0.3480	708.7	2.0628	4200.8	208.9	1.00	81.14	0.1255	255.5808	0.034077	3.3068	0.006734	97.36255	12.17032
02-12-2015 01	98	100	1848.0	0.3310	611.7	2.0407	3771.3	189.6	1.00	73.63	0.1255	231.924	0.030923	3.3068	0.006111	88.3506	11.04382
02-12-2015 02	98	100	1838.2	0.3280	602.9	2.0538	3775.3	188.6	1.00	73.34	0.1255	230.5941	0.030759	3.3068	0.006079	87.88207	10.98526
02-12-2015 03	98	100	1842.1	0.3370	620.8	2.0503	3795.3	189.0	1.00	73.39	0.1255	231.1836	0.030824	3.3068	0.006091	88.06833	11.00857
02-12-2015 04	98	100	1838.6	0.3370	619.6	2.0624	3792.0	188.6	1.00	73.25	0.1255	230.7443	0.030765	3.3068	0.006088	87.9012	10.98765
02-12-2015 05	98	100	1839.2	0.3880	715.8	2.0649	3797.7	188.7	1.00	73.27	0.1255	230.8196	0.030775	3.3068	0.006082	87.92988	10.99124
02-12-2015 06	106	112	1966.1	0.3880	753.5	2.0337	4096.8	201.7	1.00	78.33	0.1255	246.7456	0.032899	3.3068	0.006501	93.99681	11.7496
02-12-2015 07	120	134	2307.2	0.3720	858.3	2.0873	4815.9	236.7	1.00	91.92	0.1255	289.5536	0.038607	3.3068	0.007639	110.3044	13.79805
02-12-2015 08	137	154	2636.7	0.4040	1065.2	2.0812	5487.5	270.5	1.00	105.05	0.1255	330.9059	0.04412	3.3068	0.008719	126.0574	15.75717
02-12-2015 09	168	168	3017.5	0.4200	1267.4	2.0888	6303.9	306.9	1.00	120.22	0.1255	378.6963	0.050492	3.3068	0.009978	144.2629	18.03287
02-12-2015 10	169	169	3027.5	0.4260	1289.7	2.0931	6336.9	310.6	1.00	120.62	0.1255	379.9513	0.050559	3.3068	0.010011	144.741	18.09263
02-12-2015 11	157	158	2826.3	0.4080	1153.1	2.0836	5883.9	290.0	1.00	112.60	0.1255	354.7007	0.047793	3.3068	0.009346	135.1219	16.89024
02-12-2015 12	167	166	2965.6	0.4030	1195.1	2.0985	6223.4	304.3	1.00	118.15	0.1255	372.1828	0.049624	3.3068	0.007629	141.7817	17.72271
02-12-2015 13	170	168	3002.6	0.4200	1261.1	2.1118	6340.9	308.1	1.00	119.63	0.1255	387.4813	0.051663	3.3068	0.009924	143.5506	17.94382
02-12-2015 14	170	168	3022.4	0.4230	1278.5	2.1109	6380.1	310.1	1.00	120.41	0.1255	379.3112	0.05074	3.3068	0.009984	144.4972	18.06215
02-12-2015 15	169	176	3101.3	0.4100	1271.5	2.0677	6412.7	318.2	1.00	110.36	0.1255	347.6353	0.046351	3.3068	0.009116	132.4303	16.55378
02-12-2015 16	176	176	3099.9	0.4120	1277.2	2.0717	6422.0	318.1	1.00	123.50	0.1255	389.0375	0.051871	3.3068	0.008275	119.6367	14.95458
02-12-2015 17	136	154	2619.4	0.4120	1079.2	2.0801	5443.6	268.8	1.00	104.36	0.1255	328.7347	0.043831	3.3068	0.009966	144.0861	18.03076
02-12-2015 18	168	175	3087.5	0.4070	1256.6	2.0656	6377.6	316.8	1.00	123.01	0.1255	387.4813	0.051663	3.3068	0.009638	139.3386	17.4733
02-12-2015 19	169	176	3101.3	0.4100	1271.5	2.0677	6412.7	318.2	1.00	123.56	0.1255	389.2132	0.051844	3.3068	0.009489	137.192	17.149
02-12-2015 20	167	176	3099.9	0.4120	1277.2	2.0717	6422.0	318.1	1.00	123.50	0.1255	389.0375	0.051871	3.3068	0.008249	119.2685	14.90857
02-12-2015 21	155	176	3013.8	0.4020	1211.5	2.0753	6254.6	309.2	1.00	120.07	0.1255	378.2319	0.050743	3.3068	0.008662	125.2308	15.65378
02-12-2015 22	150	172	2914.5	0.4160	1212.4	2.0968	6111.2	299.0	1.00	116.12	0.1255	365.7698	0.048769	3.3068	0.009638	147.6096	18.4512
02-12-2015 23	150	167	2869.5	0.4040	1159.3	2.0999	6026.0	294.4	1.00	114.33	0.1255	360.1348	0.048017	3.3068	0.009489	137.192	17.149
02-13-2015 00	111	167	2494.7	0.4010	1000.4	2.0942	5224.4	256.0	1.00	99.39	0.1255	313.0849	0.041744	3.3068	0.008249	119.2685	14.90857
02-13-2015 01	100	172	2446.7	0.3700	905.3	2.0846	5100.4	251.0	1.00	97.48	0.1255	307.0609	0.040941	3.3068	0.008031	116.9737	14.61717

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Stack ID	Date/Hour	Y01 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack			Common Stack			Common Stack			Unit Operation (future)			Coal ton/hr	PM-10 (lb/mmhr)	PM-10 (lb/mmhr)	Lead (lb/mmhr)	Mercury (lb/mmhr)	HCl (lb/mmhr)	HF (lb/mmhr)
				Nox (lb/mmhr)	CO2 (lb/mmhr)	SO2 (lb/mmhr)	CO2 (ton/hr)	SO2 (ton/hr)	NOx (lb/mmhr)	CO2 (ton/hr)	SO2 (ton/hr)	NOx (lb/mmhr)	CO2 (ton/hr)	SO2 (ton/hr)	NOx (lb/mmhr)	CO2 (ton/hr)	SO2 (ton/hr)	NOx (lb/mmhr)	CO2 (ton/hr)	SO2 (ton/hr)	NOx (lb/mmhr)	CO2 (ton/hr)
02-13-2015 02	134	171	2784.8	0.3790	1055.4	20892	5818.0	285.7	1.00	110.95	0.1255	349.4924	0.045598	3.3068	0.009209	133.1378	16.64273					
02-13-2015 03	159	173	2971.8	0.4000	1188.7	21041	6253.0	304.9	1.00	118.40	0.1255	372.9609	0.049727	3.3068	0.009827	142.0781	17.75976					
02-13-2015 04	164	175	3032.9	0.4180	1267.8	20962	6357.6	311.2	1.00	120.83	0.1255	380.6239	0.05075	3.3068	0.010029	144.9992	18.12429					
02-13-2015 05	167	170	3067.6	0.3910	1193.1	20882	6405.9	314.7	1.00	122.22	0.1255	384.9838	0.05133	3.3068	0.010144	146.6582	18.33247					
02-13-2015 06	158	186	2856.9	0.4160	1188.1	20846	5955.6	298.1	1.00	113.82	0.1255	358.541	0.047805	3.3068	0.009447	136.5549	17.07311					
02-13-2015 07	122	94	2158.8	0.3880	833.5	20778	5955.6	285.7	1.00	87.13	0.1255	274.456	0.036594	3.3068	0.007732	104.553	13.06942					
02-13-2015 08	98	91	1874.4	0.3420	641.0	20700	3880.0	192.3	1.00	74.68	0.1255	235.2372	0.031364	3.3068	0.006198	89.61275	11.20159					
02-13-2015 09	90	126	2076.1	0.3850	799.3	20854	4329.6	213.0	1.00	82.71	0.1255	260.5506	0.03474	3.3068	0.005865	99.25578	12.40687					
02-13-2015 10	102	106	1962.2	0.3620	710.3	20872	4095.5	201.3	1.00	78.38	0.1255	246.2561	0.032834	3.3068	0.006189	93.81036	11.72629					
02-13-2015 11	138	128	2472.6	0.4100	1013.8	21143	5227.9	255.7	1.00	98.51	0.1255	310.3113	0.041374	3.3068	0.008176	118.212	14.77459					
02-13-2015 12	169	170	3054.3	0.3910	1194.2	21252	6490.9	313.4	1.00	121.69	0.1255	383.3147	0.051108	3.3068	0.010101	146.0223	18.25279					
02-13-2015 13	170	171	3046.7	0.3810	1160.8	21257	6476.4	312.6	1.00	121.38	0.1255	382.6509	0.050981	3.3068	0.010075	145.659	18.20737					
02-13-2015 14	150	142	2625.4	0.3730	979.3	21171	5558.3	269.4	1.00	104.60	0.1255	329.4877	0.043931	3.3068	0.008682	125.5171	15.68964					
02-13-2015 15	128	140	2446.4	0.4050	990.8	21050	5149.6	251.0	1.00	97.47	0.1255	307.0232	0.040936	3.3068	0.00809	116.9394	14.61982					
02-13-2015 16	151	163	2863.2	0.3710	1052.2	20983	6007.8	293.8	1.00	114.07	0.1255	359.3316	0.047791	3.3068	0.009468	136.8861	17.11076					
02-13-2015 17	153	181	2595.8	0.3610	937.1	21050	5646.1	266.3	1.00	103.42	0.1255	325.7729	0.043436	3.3068	0.008585	124.102	15.51275					
02-13-2015 18	164	127	2665.9	0.3640	968.9	21083	5612.0	275.1	1.00	106.05	0.1255	334.0685	0.044542	3.3068	0.008802	127.2622	15.90707					
02-13-2015 19	166	3037.2	1190.6	2.1017	6383.2	311.6	1.00	121.00	0.1255	381.1686	0.050822	3.3068	0.010043	145.2048	18.1506							
02-13-2015 20	170	3095.9	1213.6	2.1117	6537.7	317.6	1.00	123.34	0.1255	388.5355	0.051804	3.3068	0.010237	148.0112	18.50139							
02-13-2015 21	171	155	2981.7	0.3740	1115.2	21203	6323.7	305.9	1.00	118.79	0.1255	374.2034	0.049893	3.3068	0.009836	142.5514	17.81382					
02-13-2015 22	170	136	2820.3	0.3570	1006.8	21083	5945.9	289.4	1.00	112.36	0.1255	353.9477	0.047192	3.3068	0.009326	134.8851	16.85458					
02-13-2015 23	169	136	2832.7	0.3570	1011.3	20938	5931.2	290.6	1.00	112.86	0.1255	355.5039	0.0474	3.3068	0.009356	135.4279	16.93849					
02-14-2015 00	128	135	3600.4	0.3600	877.7	20966	511.7	250.1	1.00	97.14	0.1255	305.9816	0.040797	3.3068	0.008062	116.5625	14.57032					
02-14-2015 01	98	76	1643.3	0.3840	631.0	19426	3192.2	168.6	1.00	65.47	0.1255	206.2342	0.027497	3.3068	0.00534	78.5614	9.820538					
02-14-2015 02	128	0	1319.6	0.4460	588.5	20865	2687.4	135.4	1.00	52.57	0.1255	165.6098	0.022081	3.3068	0.004564	63.08845	7.886056					
02-14-2015 03	168	0	1664.3	0.4660	775.6	20445	3402.6	170.8	1.00	66.31	0.1255	208.8697	0.027849	3.3068	0.005503	79.56813	9.946016					
02-14-2015 04	161	0	1603.6	0.4380	702.4	20518	3290.2	164.5	1.00	63.89	0.1255	201.2518	0.026833	3.3068	0.005303	76.66614	9.583267					
02-14-2015 05	165	0	1618.2	0.4300	695.8	20418	3304.0	166.0	1.00	64.47	0.1255	203.0841	0.027077	3.3068	0.005351	77.36414	9.670518					
02-14-2015 06	165	0	1660.4	0.4250	705.7	20319	3375.7	170.4	1.00	66.92	0.1255	190.5023	0.027784	3.3068	0.005491	79.38167	9.922709					
02-14-2015 07	166	0	1629.5	0.4430	721.9	20693	3371.9	167.2	1.00	60.33	0.1255	190.0572	0.022767	3.3068	0.005388	77.90438	9.7538048					
02-14-2015 08	166	0	1630.1	0.4420	720.5	20629	3362.7	167.2	1.00	64.94	0.1255	204.5776	0.027277	3.3068	0.005339	77.93307	9.741633					
02-14-2015 09	165	0	1642.7	0.4410	724.4	20645	3391.3	168.5	1.00	65.45	0.1255	206.1589	0.027487	3.3068	0.005432	78.53546	9.816932					
02-14-2015 10	165	0	1540.7	0.4390	676.4	21009	3236.8	158.1	1.00	61.38	0.1255	193.3579	0.025781	3.3068	0.005095	73.65896	9.207371					
02-14-2015 11	146	0	1406.9	0.4330	609.2	20753	2919.8	144.3	1.00	56.05	0.1255	176.566	0.023342	3.3068	0.004652	67.26215	8.407769					
02-14-2015 12	157	0	1514.4	0.4270	645.6	20972	3176.0	155.4	1.00	60.33	0.1255	190.0572	0.025341	3.3068	0.00508	70.40159	9.050199					
02-14-2015 13	158	0	1495.7	0.4580	685.0	20729	3100.5	153.5	1.00	59.59	0.1255	187.7104	0.025028	3.3068	0.004946	71.50737	8.938446					
02-14-2015 14	153	0	1482.0	0.4490	665.4	20661	3062.0	152.0	1.00	59.04	0.1255	185.991	0.024798	3.3068	0.004961	70.85259	8.856574					
02-14-2015 15	154	0	1488.1	0.4520	672.6	20602	3065.3	152.7	1.00	59.29	0.1255	186.756	0.0249	3.3068	0.004921	71.14422	8.893028					
02-14-2015 16	163	0	1570.8	0.4710	739.8	20562	3229.9	161.2	1.00	62.58	0.1255	197.1554	0.026284	3.3068	0.005194	75.09801	9.387251					
02-14-2015 17	148	0	1449.6	0.4530	656.7	20266	2937.7	148.7	1.00	57.75	0.1255	181.9248	0.024256	3.3068	0.004793	68.30359	8.662948					
02-14-2015 18	165	0	1605.1	0.4790	768.8	20473	3286.2	164.7	1.00	63.95	0.1255	201.4401	0.026838	3.3068	0.005308	76.73785	9.572231					
02-14-2015 19	164	0	1602.5	0.4870	780.4	20371	3254.4	164.4	1.00	63.84	0.1255	201.1138	0.026815	3.3068	0.005299	76.61355	9.576693					
02-14-2015 20	160	0	1559.5	0.4780	745.4	20427	3185.6	160.0	1.00	62.13	0.1255	195.7173	0.026895	3.3068	0.005197	74.55777	9.319721					
02-14-2015 21	163	0	1585.3	0.4680	741.9	20504	3250.5	162.7	1.00	63.16	0.1255	198.9552	0.026527	3.3068	0.005242	75.779124	9.475904					
02-14-2015 22	155	0	1524.4	0.4540	692.1	20475	3121.2	156.4	1.00	60.73	0.1255	191.3122	0.025508	3.3068	0.005041	72.87688	9.10996					
02-14-2015 23	163	0	1570.0	0.4630	726.9	20672	3245.5	161.1	1.00	62.55	0.1255	197.035	0.026271	3.3068	0.005152	75.05976</						

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/MW	Common Stack SO2 (lb/MMBtu)	Common Stack CO2 (t/hr)	Common Stack CO2 (t/mmbtu)	Common Stack Unit Operation (minutes)	Coat ton/hr	PM-10 (t/mmhr)	PM-10 (lb/mhr)	Lead (lb/hr)	Mercury (lb/tonhr)	HCl (lb/hr)	HF (lb/hr)
02-15-2015 01	98	0	968.6	0.4390	425.2	2.0552	1980.7	99.4	1.00	38.59	0.1255	121.5593	0.016208	3.3068	0.003203
02-15-2015 02	134	0	1324.4	0.4200	556.2	2.0724	2744.7	135.9	1.00	52.76	0.1255	166.2122	0.022161	3.3068	0.004379
02-15-2015 03	163	0	1516.6	0.4710	723.7	2.0698	3180.5	157.7	1.00	61.22	0.1255	192.8433	0.025712	3.3068	0.005081
02-15-2015 04	164	0	1547.7	0.4790	741.3	2.0445	3164.2	158.8	1.00	61.66	0.1255	194.2364	0.025898	3.3068	0.005118
02-15-2015 05	164	0	1555.2	0.4710	782.5	1.9934	3100.2	159.6	1.00	61.96	0.1255	195.1776	0.026023	3.3068	0.005143
02-15-2015 06	164	0	1547.6	0.4650	719.6	2.0097	3110.2	158.8	1.00	61.66	0.1255	194.2238	0.025896	3.3068	0.005118
02-15-2015 07	167	0	1628.2	0.4760	775.0	2.0054	3266.8	167.0	1.00	64.87	0.1255	204.3391	0.027245	3.3068	0.005384
02-15-2015 08	170	0	1576.5	0.4640	777.9	1.9826	3323.9	172.0	1.00	66.79	0.1255	210.4008	0.028053	3.3068	0.005544
02-15-2015 09	170	0	1649.9	0.4690	773.8	2.0864	1693.3	1.00	65.73	0.1255	207.0625	0.027608	3.3068	0.005139	
02-15-2015 10	170	0	1667.1	0.4610	768.5	1.9857	3312.0	171.0	1.00	66.42	0.1255	209.2211	0.027896	3.3068	0.005113
02-15-2015 11	170	0	1655.7	0.4700	778.2	2.0050	3319.6	169.9	1.00	65.96	0.1255	207.7904	0.027705	3.3068	0.005475
02-15-2015 12	170	0	1664.1	0.4610	767.2	1.9757	3287.7	170.7	1.00	66.30	0.1255	208.8446	0.027845	3.3068	0.005508
02-15-2015 13	170	0	1665.3	0.4520	752.7	1.9661	3274.1	170.9	1.00	66.35	0.1255	208.9592	0.027866	3.3068	0.005507
02-15-2015 14	170	0	1650.7	0.4550	751.1	1.9933	3290.4	169.4	1.00	65.76	0.1255	207.1629	0.027621	3.3068	0.005458
02-15-2015 15	162	0	1587.7	0.4370	693.8	2.0026	3179.5	162.9	1.00	63.25	0.1255	199.2564	0.026567	3.3068	0.005175
02-15-2015 16	166	0	1628.4	0.4450	724.6	2.0122	3276.7	167.1	1.00	64.88	0.1255	204.3642	0.027248	3.3068	0.005385
02-15-2015 17	170	0	1662.0	0.4550	756.2	2.0199	3357.1	170.5	1.00	66.22	0.1255	208.581	0.02781	3.3068	0.005496
02-15-2015 18	170	0	1668.7	0.4680	781.0	2.0207	3371.9	171.2	1.00	66.48	0.1255	209.4219	0.027922	3.3068	0.005518
02-15-2015 19	171	0	1662.5	0.4800	798.0	2.0369	3386.4	170.6	1.00	66.24	0.1255	208.6438	0.027819	3.3068	0.005498
02-15-2015 20	171	0	1656.5	0.4710	780.2	2.0453	3388.1	170.0	1.00	66.00	0.1255	207.8908	0.027718	3.3068	0.005478
02-15-2015 21	171	0	1659.0	0.4670	774.8	2.0495	3400.1	170.2	1.00	66.10	0.1255	208.2045	0.027776	3.3068	0.005486
02-15-2015 22	171	0	1680.3	0.4410	741.2	3.0312	3414.0	172.5	1.00	66.96	0.1255	210.9404	0.028125	3.3068	0.00558
02-15-2015 23	171	0	1668.0	0.4520	753.9	2.0458	3412.4	171.1	1.00	66.45	0.1255	209.334	0.027911	3.3068	0.005516
02-15-2015 24	171	0	1241.0	0.4760	590.7	2.0091	2493.9	127.3	1.00	49.44	0.1255	155.7455	0.020766	3.3068	0.004104
02-16-2015 00	126	0	986.3	0.4300	424.1	1.9877	1960.5	101.2	1.00	39.29	0.1255	123.7807	0.016504	3.3068	0.003161
02-16-2015 01	98	0	1409.7	0.4110	579.4	2.0218	2850.1	144.6	1.00	56.16	0.1255	176.9174	0.023389	3.3068	0.004343
02-16-2015 02	138	0	1705.1	0.4510	769.0	2.0388	3476.4	174.9	1.00	67.93	0.1255	213.9901	0.028332	3.3068	0.00558
02-16-2015 03	171	0	1675.1	0.4620	773.9	2.0530	3439.0	171.9	1.00	66.74	0.1255	210.2251	0.02803	3.3068	0.005332
02-16-2015 04	170	0	1673.0	0.4430	741.1	2.0550	3438.0	171.6	1.00	66.55	0.1255	209.9615	0.027994	3.3068	0.005332
02-16-2015 05	157	0	1562.2	0.4390	685.8	2.0319	3174.2	160.3	1.00	62.24	0.1255	196.0561	0.026154	3.3068	0.005165
02-16-2015 06	165	0	1637.8	0.4470	732.1	2.0480	3354.2	168.0	1.00	65.25	0.1255	205.5439	0.027405	3.3068	0.005416
02-16-2015 07	170	0	1684.2	0.4520	761.3	2.0395	3434.9	172.8	1.00	67.0	0.1255	211.3671	0.028182	3.3068	0.004662
02-16-2015 08	167	0	1650.6	0.4500	742.8	2.0493	3382.6	169.4	1.00	65.76	0.1255	207.1503	0.027662	3.3068	0.005538
02-16-2015 09	170	0	1673.0	0.4430	741.1	2.0550	3438.0	171.6	1.00	66.55	0.1255	209.9615	0.027994	3.3068	0.005332
02-16-2015 10	170	0	1666.6	0.4450	741.6	2.0421	3403.4	171.0	1.00	66.40	0.1255	209.1583	0.027887	3.3068	0.005161
02-16-2015 11	170	0	1673.8	0.4360	729.8	2.0365	3408.7	171.7	1.00	66.69	0.1255	210.0619	0.028008	3.3068	0.005535
02-16-2015 12	170	0	1673.8	0.4450	744.8	2.0418	3417.5	171.7	1.00	66.49	0.1255	210.0619	0.028008	3.3068	0.005535
02-16-2015 13	170	0	1659.5	0.4500	746.8	2.0670	3430.2	170.3	1.00	66.12	0.1255	208.2673	0.027759	3.3068	0.005488
02-16-2015 14	170	0	1663.3	0.4490	751.1	2.0650	3422.8	170.1	1.00	66.04	0.1255	208.0463	0.027735	3.3068	0.005481
02-16-2015 15	170	0	1654.4	0.4480	741.2	2.0740	3431.2	169.7	1.00	65.91	0.1255	207.6277	0.027683	3.3068	0.005471
02-16-2015 16	170	0	1665.0	0.4510	750.9	2.0689	3444.8	170.8	1.00	66.33	0.1255	208.9575	0.027861	3.3068	0.005506
02-16-2015 17	169	0	1657.6	0.4520	749.2	2.0763	3441.6	170.1	1.00	66.04	0.1255	208.0288	0.027737	3.3068	0.005481
02-16-2015 18	170	0	1663.3	0.4540	755.1	2.0667	3437.5	170.7	1.00	66.27	0.1255	208.7442	0.027832	3.3068	0.005487
02-16-2015 19	170	0	1659.4	0.4530	751.0	2.0733	3440.5	170.3	1.00	66.11	0.1255	208.2347	0.027767	3.3068	0.005487
02-16-2015 20	170	0	1658.8	0.4540	753.1	2.0699	3433.6	170.2	1.00	66.09	0.1255	208.1794	0.027757	3.3068	0.005485
02-16-2015 21	170	0	1658.2	0.4540	752.8	2.0637	3422.0	170.1	1.00	66.06	0.1255	208.1041	0.027747	3.3068	0.005483
02-16-2015 22	170	0	1660.6	0.4550	755.6	2.0626	3425.2	170.4	1.00	66.16	0.1255	208.4053	0.027787	3.3068	0.005491
02-16-2015 23	170	0	1655.5	0.4560	754.9	2.0634	3415.9	169.9	1.00	65.96	0.1255	207.7653	0.027702	3.3068	0.005474

Dominion Energy - Yarftown Power Station - Units 1 and 2 Combined Stack
Haulby Mass Emissions
January 1, 2015 through November 26, 2017

Date/Time	Date/Hour	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Common Stack NOx (lb/mmBtu)	Common Stack NOx (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (lb/mmBtu)	Common Stack CO2 (lb/mmBtu)	Common Stack (CO2 t/mmHr)	Common Stack (CO2 t/mmHr)	Unit Operation (minutes)	Coal tons/Hr	PM-10 (lb/mmHr)	PM-10 (lb/mmHr)	Lead (lb/mmHr)	Lead (lb/mmHr)	Mercury (lb/mmHr)	Mercury (lb/mmHr)	HCl (lb/mmHr)	HCl (lb/mmHr)	HF (lb/mmHr)	HF (lb/mmHr)
02-17-2015 00	130	0	1282.2	0.4800	615.5	2.0399	2615.6	131.6	1.00	51.08	0.1255	160.9161	0.022455	3.3068	0.00424	61.3004	7.66255	3.3068	0.003529	51.02629	6.378287		
02-17-2015 01	106	0	1067.3	0.4660	497.4	2.0541	2192.3	109.5	1.00	42.52	0.1255	133.9462	0.017859	3.3068	0.003529	51.02629	6.378287	3.3068	0.00475	68.69641	8.587052		
02-17-2015 02	141	0	1456.9	0.4000	574.8	2.0756	2982.4	147.4	1.00	57.20	0.1255	180.331	0.024044	3.3068	0.005544	80.16096	10.020212	3.3068	0.0028056	3.3068	0.005498	79.49463	9.986454
02-17-2015 03	170	0	1676.7	0.4490	752.8	2.0545	3444.8	172.0	1.00	66.00	0.1255	210.4259	0.024259	3.3068	0.005544	80.16096	10.020212	3.3068	0.0028056	3.3068	0.005498	79.49463	9.986454
02-17-2015 04	170	0	1662.7	0.4490	744.9	2.0618	3428.1	170.6	1.00	66.24	0.1255	208.6689	0.0227822	3.3068	0.005498	80.06056	10.00757	3.3068	0.0028056	3.3068	0.005498	78.89402	9.861753
02-17-2015 05	170	0	1650.2	0.4540	749.2	2.0398	3366.0	169.3	1.00	65.75	0.1255	207.1001	0.0277613	3.3068	0.005457	78.89402	9.861753	3.3068	0.005457	78.89402	9.861753		
02-17-2015 06	170	0	1658.7	0.4660	773.0	2.0438	3390.0	170.2	1.00	66.08	0.1255	208.1669	0.027755	3.3068	0.005485	79.3904	9.91255	3.3068	0.005485	79.3904	9.91255		
02-17-2015 07	170	0	1655.4	0.4620	764.8	2.0491	3392.0	169.8	1.00	65.95	0.1255	207.7527	0.02277	3.3068	0.005474	79.14263	9.832829	3.3068	0.005474	79.14263	9.832829		
02-17-2015 08	170	0	1674.6	0.4600	770.3	2.0394	3415.2	171.8	1.00	66.72	0.1255	210.1623	0.028021	3.3068	0.005538	80.06056	10.00757	3.3068	0.005538	80.06056	10.00757		
02-17-2015 09	170	0	1650.5	0.4640	765.8	2.0454	3377.6	169.3	1.00	65.76	0.1255	207.1378	0.027618	3.3068	0.005458	78.90837	9.883556	3.3068	0.005458	78.90837	9.883556		
02-17-2015 10	170	0	1650.1	0.4630	764.0	2.0355	3358.6	169.3	1.00	65.74	0.1255	207.0876	0.027611	3.3068	0.005457	78.88924	9.881155	3.3068	0.005457	78.88924	9.881155		
02-17-2015 11	169	0	1658.8	0.4540	753.1	2.0148	3342.2	170.2	1.00	66.09	0.1255	208.1794	0.027757	3.3068	0.005485	79.30518	9.913147	3.3068	0.005485	79.30518	9.913147		
02-17-2015 12	170	0	1673.9	0.4660	780.0	2.0105	3365.4	171.7	1.00	66.69	0.1255	210.0745	0.028009	3.3068	0.005533	80.02709	10.00339	3.3068	0.005533	80.02709	10.00339		
02-17-2015 13	170	0	1673.0	0.4800	803.0	1.9989	3344.2	171.7	1.00	66.65	0.1255	209.9615	0.027954	3.3068	0.00546	79.98406	9.998008	3.3068	0.00546	79.98406	9.998008		
02-17-2015 14	170	0	1666.4	0.4670	778.2	1.9906	3317.2	171.0	1.00	66.39	0.1255	209.1532	0.027684	3.3068	0.00551	79.66833	9.958566	3.3068	0.00551	79.66833	9.958566		
02-17-2015 15	170	0	1661.8	0.4740	787.7	2.0006	3324.6	170.5	1.00	66.21	0.1255	208.5559	0.027807	3.3068	0.005495	79.44861	9.931076	3.3068	0.005495	79.44861	9.931076		
02-17-2015 16	170	0	1664.5	0.4740	789.0	1.9976	3325.0	170.8	1.00	66.31	0.1255	208.8941	0.027852	3.3068	0.005504	79.57769	9.947211	3.3068	0.005504	79.57769	9.947211		
02-17-2015 17	170	0	1663.7	0.4670	776.9	2.0033	3332.9	170.7	1.00	66.28	0.1255	208.7944	0.027839	3.3068	0.005501	79.53944	9.94243	3.3068	0.005501	79.53944	9.94243		
02-17-2015 18	170	0	1669.0	0.4640	774.4	2.0049	3346.2	171.2	1.00	66.49	0.1255	209.4595	0.027927	3.3068	0.005519	79.79283	9.97104	3.3068	0.005519	79.79283	9.97104		
02-17-2015 19	170	0	1669.2	0.4640	774.5	2.0163	3366.5	171.3	1.00	66.50	0.1255	209.4846	0.027981	3.3068	0.00552	79.80239	9.97299	3.3068	0.00552	79.80239	9.97299		
02-17-2015 20	170	0	1672.7	0.4650	777.8	2.0238	3385.2	171.6	1.00	66.64	0.1255	209.9239	0.027989	3.3068	0.00551	79.96972	9.996215	3.3068	0.00551	79.96972	9.996215		
02-17-2015 21	170	0	1671.4	0.4630	773.9	2.0382	3406.6	171.5	1.00	66.59	0.1255	209.7607	0.027968	3.3068	0.005507	79.90757	9.984446	3.3068	0.005507	79.90757	9.984446		
02-17-2015 22	167	0	1631.8	0.4670	762.1	2.0634	3367.1	167.4	1.00	65.01	0.1255	209.7909	0.027935	3.3068	0.005536	78.01434	9.751793	3.3068	0.005536	78.01434	9.751793		
02-17-2015 23	158	0	1525.9	0.4430	676.0	2.0852	3105.5	156.6	1.00	60.79	0.1255	191.5005	0.025533	3.3068	0.005496	72.95139	9.118924	3.3068	0.005496	72.95139	9.118924		
02-18-2015 00	129	0	1321.1	0.4330	533.1	1.9301	2376.1	126.3	1.00	49.05	0.1255	154.5031	0.020206	3.3068	0.004071	58.85737	7.357171	3.3068	0.004071	58.85737	7.357171		
02-18-2015 01	115	0	1091.4	0.4410	448.6	1.9613	2140.6	112.0	1.00	43.48	0.1255	136.9707	0.018262	3.3068	0.003669	52.17849	6.522331	3.3068	0.003669	52.17849	6.522331		
02-18-2015 02	115	0	1088.1	0.4020	437.4	1.9892	2164.4	111.6	1.00	43.35	0.1255	136.5566	0.018207	3.3068	0.003588	52.02072	6.50259	3.3068	0.003588	52.02072	6.50259		
02-18-2015 03	134	0	1260.4	0.3860	486.5	2.0194	2545.3	129.3	1.00	50.22	0.1255	158.1802	0.02109	60.25817	7.532271	3.3068	0.005536	79.33625	9.992032	3.3068	0.005536	79.33625	9.992032
02-18-2015 04	165	0	1619.7	0.3950	646.3	1.9896	3141.5	166.2	1.00	54.53	0.1255	203.2724	0.027103	3.3068	0.00536	77.43586	9.674982	3.3068	0.00536	77.43586	9.674982		
02-18-2015 05	170	0	1678.8	0.4280	718.5	1.9023	3198.9	172.2	1.00	66.88	0.1255	210.6894	0.028091	3.3068	0.00551	80.26135	10.03267	3.3068	0.00551	80.26135	10.03267		
02-18-2015 06	170	0	1694.7	0.4270	723.6	1.9238	3260.3	173.9	1.00	64.57	0.1255	212.6849	0.028358	3.3068	0.005539	77.47888	9.684861	3.3068	0.005539	77.47888	9.684861		
02-18-2015 07	171	0	1682.0	0.4280	736.7	1.9508	3281.3	172.6	1.00	67.01	0.1255	211.091	0.028145	3.3068	0.005562	80.41434	10.05179	3.3068	0.005562	80.41434	10.05179		
02-18-2015 08	171	0	1672.0	0.4380	732.3	1.9572	3272.4	171.6	1.00	66.61	0.1255	209.8356	0.027978	3.3068	0.005529	79.33625	9.992032	3.3068	0.005529	79.33625	9.992032		
02-18-2015 09	152	0	1568.5	0.4190	657.2	1.9259	3020.8	160.9	1.00	62.49	0.1255	196.8468	0.026246	3.3068	0.005187	74.38805	9.375056	3.3068	0.005187	74.38805	9.375056		
02-18-2015 10	149	0	1564.2	0.4140	647.6	1.9114	2989.8	160.5	1.00	62.32	0.1255	195.3071	0.026174	3.3068	0.00457	74.78247	9.347809	3.3068	0.00457	74.78247	9.347809		
02-18-2015 11	156	0	1620.6	0.4200	680.7	1.9220	3114.8	166.3	1.00	64.57	0.1255	203.3853	0.027118	3.3068	0.005359	77.47888	9.684861	3.3068	0.005359	77.47888	9.684861		
02-18-2015 12	151	0	1564.9	0.4200	657.3	1.9049	2981.0	160.6	1.00	62.35	0.1255	196.3935	0.026186	3.3068	0.005175	74.81594	9.351992	3.3068	0.005175	74.81594	9.351992		
02-18-2015 13	85	0	1042.6	0.3320	346.1	1.7641	1839.3	107.0	1.00	41.54	0.1255	130.8463	0.017446	3.3068	0.003448	49.84542	6.230677	3.3068	0.003448	49.84542	6.230677		
02-18-2015 14	19	0	431.4	0.1231	53.1	1.2478	538.3	44.3	1.00	17.19	0.1255	54.1407	0.007219	3.3068	0.001427	20.6247	2.578088	3.3068	0.001427	20.6247	2.578088		
02-18-2015 15	0	0	145.4	0.0213	3.1	0.1045	15.2	14.9	1.00	5.79	0.1255	18.2477	0.002453	3.3068	0.000481	6.951394	0.868924	3.3068	0.000481	6.951394	0.868924		
02-18-2015 16	1	1	142.1	0.0197	2.8	0.0999	14.2	14.6	1.00	5.66	0.1255	17.83355	0.002378	3.3068	0.000467	6.795625	0.849203	3.306					

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Date/Time	Y01 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx (lb/MWh)	Common Stack SO2 (lb/MMBtu)	Common Stack CO2 (t/hr)	Common Stack Unit Operation (minutes)	Coolant flow (lb/min)	PM-10 (lb/min)	PM-10 (lb/hr)	Lead (lb/min)	Lead (lb/hr)	Mercury (lb/min)	Mercury (lb/hr)	HCl (lb/min)	HCl (lb/hr)	HF (lb/min)	HF (lb/hr)
02-20-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-20-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-21-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0	0
02-22-2015 00	0	0	62.6	0.0160	1.0	0.0000	0.0	6.4	1.00	2.49	0.0000	0.1255	0	0.0000	0	0.0000	0	0
02-22-2015 01	0	0	88.2	0.0317	2.8	0.0000	0.0	9.1	1.00	3.51	0.0000	0.1255	0	0.0000	0	0.0000	0	0
02-22-2015 02	0	0	100.7	0.0417	4.2	0.0000	0.0	10.3	1.00	4.01	0.0000	0.1255	0	0.0000	0	0.0000	0	0
02-22-2015 03	0	0	92.7	0.0410	3.8	0.0453	4.2	9.5	1.00	3.69	0.0000	0.1255	0	0.0000	0	0.0000	0	0
02-22-2015 04	0	0	96.9	0.0392	3.8	0.0041	0.4	9.9	1.00	3.86	0.0000	0.1255	0	0.0000	0	0.0000	0	0
02-22-2015 05	0	0	94.2	0.0403	3.8	0.0000	0.0	9.7	1.00	3.75	0.0000	0.1255	0	0.0000	0	0.0000	0	0
02-22-2015 06	0	0	93.0	0.0409	3.8	0.0000	0.0	9.5	1.00	3.71	0.0000	0.1255	0	0.0000	0	0.0000	0	0
02-22-2015 07	0	0	92.2	0.0401	3.7	0.0000	0.0	9.5	1.00	3.67	0.0000	0.1255	0	0.0000	0	0.0000	0	0
02-22-2015 08	0	0	92.5	0.0389	3.6	0.0000	0.0	9.5	1.00	3.69	0.0000	0.1255	0	0.0000	0	0.0000	0	0
02-22-2015 09	0	0	92.4	0.0390	3.6	0.0000	0.0	9.5	1.00	3.68	0.0000	0.1255	0	0.0000	0	0.0000	0	0
02-22-2015 10	0	0	128.3	0.0811	10.4	0.2362	30.3	13.2	1.00	5.11	0.0000	0.1255	16.10165	0.0002147	3.3068	0.000424	6.153865	0.766733
02-22-2015 11	0	0	652.8	0.3090	201.7	1.6451	1.073.9	67.0	1.00	26.01	0.0000	0.1255	81.9264	0.010923	3.3068	0.0002159	31.20956	3.901195
02-22-2015 12	137	0	1031.9	0.3230	333.3	2.0369	2101.9	105.9	1.00	41.11	0.0000	0.1255	129.5035	0.017267	3.3068	0.003442	49.33386	6.166733
02-22-2015 13	100	0	1050.7	0.4050	425.5	2.0657	2170.4	107.8	1.00	41.86	0.0000	0.1255	131.8629	0.017581	3.3068	0.003474	50.23267	6.275084
02-22-2015 14	105	0	1017.6	0.3680	374.5	2.0545	2090.7	104.4	1.00	40.54	0.0000	0.1255	127.7088	0.017028	3.3068	0.003436	48.6502	6.084275
02-22-2015 15	102	0	1368.9	0.3970	543.5	2.0855	2854.8	140.5	1.00	54.54	0.0000	0.1255	171.397	0.022906	3.3068	0.00457	65.44542	8.18677
02-22-2015 16	155	0	1624.9	0.4740	698.5	2.0610	3150.3	156.8	1.00	60.90	0.0000	0.1255	191.8268	0.025576	3.3068	0.005024	73.0757	9.134462
02-22-2015 17	170	0	1628.2	0.4760	770.2	2.0979	3408.8	166.7	1.00	64.74	0.0000	0.1255	203.925	0.02719	3.3068	0.005373	77.68446	9.7010558
02-22-2015 18	170	0	1628.8	0.4780	778.6	2.1299	3469.1	167.1	1.00	64.89	0.0000	0.1255	204.4144	0.027255	3.3068	0.005344	77.84223	9.730279
02-22-2015 19	170	0	1628.8	0.4780	778.6	2.1299	3469.1	167.1	1.00	64.89	0.0000	0.1255	204.4144	0.027255	3.3068	0.005356	77.87092	9.733865

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

SIS#	Date/Time	Date/Hour	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/MWh	Common Stack SO2 (lb/MWh)	Common Stack CO2 (t/hr)	Common Stack CO2 (tons/hr)	Common Stack Unit Operation (minutes)	Coal ton/hr	PM-10 (lb/mmbsu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/TSu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
SO2 (lb/mmbsu)	NOx Lb/MWh	CO2 (t/hr)	CO2 (tons/hr)															
02-22-2015 21	166	0	1593.9	0.4750	757.1	2.1146	3370.4	163.5	1.00	63.50	0.1255	200.0345	0.026671	3.3068	0.005271	76.20239	9.525299	
02-22-2015 22	146	0	1405.7	0.4800	674.7	2.0992	2950.8	144.2	1.00	56.00	0.1255	176.4154	0.025252	3.3068	0.004648	67.20478	8.405958	
02-22-2015 23	125	0	1227.9	0.4780	586.9	2.0971	2575.0	126.0	1.00	48.38	0.1255	154.4015	0.020547	3.3068	0.00406	58.70438	7.338048	
02-23-2015 00	123	0	1211.9	0.4910	595.0	2.1153	2563.5	124.3	1.00	43.76	0.1255	152.0935	0.020279	3.3068	0.00407	57.593944	7.24243	
02-23-2015 01	112	0	1098.3	0.4670	512.9	2.1183	2326.5	112.7	1.00	38.27	0.1255	120.5553	0.016074	3.3068	0.003176	45.9251	5.740587	
02-23-2015 02	98	0	960.6	0.4510	433.2	2.1108	2027.6	98.6	1.00	38.30	0.1255	120.6432	0.016085	3.3068	0.003179	45.95557	5.744821	
02-23-2015 03	98	0	961.3	0.4280	411.4	2.1287	2046.3	98.6	1.00	43.51	0.1255	137.046	0.018227	3.3068	0.003511	52.20717	6.525896	
02-23-2015 04	112	0	1092.0	0.4090	446.6	2.1368	2333.4	112.0	1.00	51.76	0.1255	163.0496	0.02174	3.3068	0.004296	62.11315	7.764143	
02-23-2015 05	131	0	1299.2	0.4570	593.7	2.1339	2772.4	133.3	1.00	60.01	0.1255	189.0281	0.025203	3.3068	0.004981	72.09856	9.001195	
02-23-2015 06	156	0	1505.2	0.4460	671.8	2.1510	3239.8	154.5	1.00	60.28	0.1255	189.3815	0.025317	3.3068	0.005003	72.33466	9.041833	
02-23-2015 07	156	0	1513.0	0.4660	705.1	2.1443	3244.4	155.2	1.00	61.64	0.1255	194.1736	0.025889	3.3068	0.005156	73.96972	9.246215	
02-23-2015 08	164	0	1547.2	0.4740	733.4	2.1750	3365.2	158.7	1.00	61.41	0.1255	193.4332	0.025791	3.3068	0.005097	73.68765	9.210956	
02-23-2015 09	163	0	1541.3	0.4810	741.4	2.1691	3343.2	158.1	1.00	58.47	0.1255	184.1713	0.024556	3.3068	0.004853	70.15936	8.76992	
02-23-2015 10	153	0	1467.5	0.4870	714.7	2.1700	3184.5	150.6	1.00	61.05	0.1255	192.3162	0.025642	3.3068	0.005067	73.26215	9.157769	
02-23-2015 11	161	0	1532.4	0.4810	737.1	2.1805	3341.4	157.2	1.00	61.86	0.1255	194.8513	0.02598	3.3068	0.005134	74.22789	6.278486	
02-23-2015 12	163	0	1552.6	0.4790	743.7	2.1631	3358.4	159.3	1.00	62.13	0.1255	195.7047	0.026094	3.3068	0.005157	74.55799	9.319124	
02-23-2015 13	163	0	1559.4	0.4820	751.6	2.1441	3343.5	160.0	1.00	61.00	0.1255	192.4656	0.025222	3.3068	0.005053	73.20478	9.150598	
02-23-2015 14	160	0	1531.2	0.4790	733.4	2.1337	3267.1	157.1	1.00	60.51	0.1255	190.622	0.025416	3.3068	0.005023	72.61673	9.077092	
02-23-2015 15	157	0	1518.9	0.4760	723.0	2.1022	3199.1	155.8	1.00	61.50	0.1255	193.7544	0.025831	3.3068	0.005105	73.80239	9.225299	
02-23-2015 16	162	0	1543.7	0.4640	716.3	2.0960	3235.6	158.4	1.00	62.04	0.1255	195.4412	0.026058	3.3068	0.005151	74.45259	9.306574	
02-23-2015 17	163	0	1557.3	0.4660	725.7	2.0938	3260.7	159.8	1.00	62.15	0.1255	195.7675	0.026102	3.3068	0.005158	74.57689	9.322112	
02-23-2015 18	164	0	1559.9	0.4630	722.2	2.0886	3258.0	160.0	1.00	63.54	0.1255	202.5445	0.027095	3.3068	0.005337	77.15857	9.644821	
02-23-2015 19	167	0	1613.9	0.4630	747.2	2.1034	3394.5	165.6	1.00	61.89	0.1255	194.9643	0.026659	3.3068	0.005137	74.27092	9.283865	
02-23-2015 20	164	0	1553.5	0.4400	683.5	2.1160	3287.2	159.4	1.00	63.37	0.1255	199.6078	0.026614	3.3068	0.00514	74.30916	9.288645	
02-23-2015 21	163	0	1554.3	0.4340	674.6	2.0990	3262.5	159.5	1.00	61.92	0.1255	195.0647	0.026008	3.3068	0.005156	74.71554	9.339442	
02-23-2015 22	164	0	1562.8	0.4310	673.6	2.1023	3285.4	160.3	1.00	62.26	0.1255	196.1314	0.026115	3.3068	0.005217	76.2502	9.531275	
02-23-2015 23	167	0	1594.9	0.4370	697.0	2.0822	3320.9	163.6	1.00	63.47	0.1255	199.9466	0.026659	3.3068	0.005268	76.168392	9.521116	
02-24-2015 00	167	0	1593.2	0.4410	702.6	2.0369	3324.8	163.5	1.00	63.44	0.1255	199.8462	0.0265646	3.3068	0.005266	77.69402	9.711753	
02-24-2015 01	167	0	1590.5	0.4370	695.0	2.0974	3335.9	163.2	1.00	63.43	0.1255	198.8086	0.026641	3.3068	0.005265	76.11633	9.514548	
02-24-2015 02	167	0	1592.1	0.4400	700.5	2.1029	3348.0	163.3	1.00	63.77	0.1255	200.0219	0.026669	3.3068	0.00527	76.19761	9.524701	
02-24-2015 03	166	0	1593.8	0.4450	709.2	2.0978	3343.5	163.5	1.00	65.56	0.1255	206.5103	0.027534	3.3068	0.005441	78.66982	9.833665	
02-24-2015 04	167	0	1598.4	0.4460	712.9	2.1094	3371.7	164.0	1.00	63.68	0.1255	200.5992	0.026746	3.3068	0.005286	76.41753	9.552191	
02-24-2015 05	169	0	1625.1	0.4520	734.5	2.0923	3400.2	166.7	1.00	64.75	0.1255	203.9501	0.027193	3.3068	0.005374	77.69402	9.711753	
02-24-2015 06	169	0	1632.3	0.4590	749.2	2.1084	3441.5	167.5	1.00	65.03	0.1255	204.8337	0.027313	3.3068	0.005398	78.03825	9.504982	
02-24-2015 07	166	0	1600.6	0.4520	723.5	2.1084	3374.7	164.2	1.00	63.43	0.1255	198.8086	0.026641	3.3068	0.005265	76.52271	9.565339	
02-24-2015 08	169	0	1645.5	0.4670	763.4	2.1065	3466.2	168.8	1.00	65.56	0.1255	206.5103	0.027534	3.3068	0.005347	77.30677	9.665347	
02-24-2015 09	170	0	1643.4	0.4730	777.3	2.1186	3481.7	168.6	1.00	64.47	0.1255	206.2467	0.027499	3.3068	0.005424	78.56892	9.821116	
02-24-2015 10	165	0	1592.4	0.4450	708.6	2.1285	3389.4	163.4	1.00	63.44	0.1255	199.8462	0.0265646	3.3068	0.005266	76.13068	9.516335	
02-24-2015 11	167	0	1589.4	0.4380	696.2	2.1426	3405.5	163.1	1.00	63.32	0.1255	199.4697	0.026596	3.3068	0.005256	75.98775	9.498406	
02-24-2015 12	169	0	1621.0	0.4370	708.4	2.1399	3468.8	166.3	1.00	64.58	0.1255	203.4355	0.027124	3.3068	0.005236	77.49801	9.687251	
02-24-2015 13	170	0	1617.0	0.4400	711.5	2.1407	3461.5	165.9	1.00	64.42	0.1255	202.9335	0.027057	3.3068	0.005347	78.66982	9.833665	
02-24-2015 14	169	0	1625.9	0.4360	708.9	2.1503	3496.1	166.8	1.00	64.78	0.1255	204.0505	0.027206	3.3068	0.005376	77.73227	9.7115534	
02-24-2015 15	169	0	1622.1	0.4390	712.1	2.1397	3470.8	166.4	1.00	64.63	0.1255	203.5736	0.027143	3.3068	0.005364	77.55056	9.693825	
02-24-2015 16	170	0	1642.5	0.4480	735.8	2.1663	3558.1	168.5	1.00	65.44	0.1255	206.1538	0.027784	3.3068	0.005431	78.5259	9.815737	
02-24-2015 17	169	0	1648.5	0.4520	745.1	2.1531	3557.6	169.1	1.00	65.68	0.1255	206.8858	0.027584	3.3068	0.005451	78.81275	9.855594	
02-24-2015 18	171	0	1654.1	0.4380	724.5	2.1648	3580.8	169.7	1.00	65.90	0.1255	207.5896	0.027678	3.3068	0.00547	79.08048	9.885056	
02-24-2015 19	170	0	1656.9	0.4500	762.2	2.1734	3601.1	170.0	1.00	66.01	0.1255	207.941	0.027725	3.3068	0.005479	79.21434	9.901793	

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Timestamp	Date/Hour	YTD Gross Load MW Value	YTD Gross Load MW Value	Common Stack NOx lb/mmBtu	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (lb/lbmHr)	Common Stack CO2 (lb/lbmHr)	Common Stack Unit Operation (minutes)	Coatings/Hr	PM-10 (lb/mmHg)	PM-10 (lb/mmHg)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)	
02-24-2015 20	170	0	1648.8	0.4610	760.1	2.1787	3592.3	169.2	1.00	65.69	0.1255	206.9244	0.027589	3.3068	0.005452	78.82709	9.953386
02-24-2015 21	169	0	1663.7	0.4520	752.0	2.1681	3607.0	170.7	1.00	66.28	0.1255	208.7944	0.027839	3.3068	0.005501	79.53944	9.94243
02-24-2015 22	170	0	1621.1	0.4580	747.5	2.1667	3536.3	167.5	1.00	65.02	0.1255	204.8286	0.02731	3.3068	0.005539	78.02869	9.753586
02-24-2015 23	168	0	1623.8	0.4500	726.2	2.1206	3422.3	165.6	1.00	64.29	0.1255	202.5319	0.027004	3.3068	0.005336	77.15378	9.644223
02-25-2015 00	116	0	1106.4	0.5060	559.8	2.0502	2268.3	113.5	1.00	44.08	0.1255	138.8532	0.018513	3.3068	0.003659	52.89562	6.611952
02-25-2015 01	114	0	1075.6	0.4660	501.2	2.0502	2205.2	110.4	1.00	42.85	0.1255	134.9878	0.017998	3.3068	0.003557	51.42311	6.427888
02-25-2015 02	145	0	1384.8	0.4310	596.3	2.0333	2815.7	142.1	1.00	55.17	0.1255	173.7924	0.023172	3.3068	0.004579	66.20558	8.275697
02-25-2015 03	170	0	1589.4	0.4540	725.7	2.0162	3222.7	164.0	1.00	63.68	0.1255	200.5992	0.026746	3.3068	0.005286	76.47753	9.552191
02-25-2015 04	170	0	1591.6	0.4520	719.4	2.0172	3210.5	163.3	1.00	63.41	0.1255	195.7458	0.026633	3.3068	0.005263	76.09243	9.511554
02-25-2015 05	168	0	1661.8	0.4220	701.3	1.9135	3188.1	170.5	1.00	66.21	0.1255	208.5559	0.027807	3.3068	0.005495	79.44861	9.931076
02-25-2015 06	169	0	1664.7	0.4320	719.2	1.9334	3218.5	170.8	1.00	66.32	0.1255	208.9199	0.027856	3.3068	0.005505	75.58725	9.948406
02-25-2015 07	169	0	1661.8	0.4330	719.6	1.9356	3216.5	170.5	1.00	66.21	0.1255	208.5559	0.027807	3.3068	0.005495	79.44861	9.931076
02-25-2015 08	170	0	1619.8	0.4390	711.1	1.9939	3229.8	166.2	1.00	64.53	0.1255	203.2849	0.027104	3.3068	0.005356	77.44064	9.68008
02-25-2015 09	170	0	1654.4	0.4300	711.4	1.9313	3195.1	169.7	1.00	65.91	0.1255	207.6272	0.027683	3.3068	0.005471	79.09482	9.886853
02-25-2015 10	169	0	1630.6	0.4200	684.9	1.9252	3139.2	167.3	1.00	64.96	0.1255	204.6403	0.027285	3.3068	0.005392	77.95697	9.744622
02-25-2015 11	171	0	1639.5	0.4260	688.4	1.9038	3129.5	168.2	1.00	65.32	0.1255	205.7573	0.027434	3.3068	0.005421	78.38247	9.797809
02-25-2015 12	170	0	1651.8	0.4210	695.4	1.8961	3132.0	169.5	1.00	65.81	0.1255	207.3009	0.02764	3.3068	0.005462	78.97052	9.871315
02-25-2015 13	171	0	1646.4	0.4190	689.8	1.8904	3112.3	168.9	1.00	65.59	0.1255	206.6232	0.027549	3.3068	0.005444	78.71235	9.839044
02-25-2015 14	169	0	1630.3	0.4180	681.5	1.8843	3071.9	167.3	1.00	64.95	0.1255	204.6027	0.02728	3.3068	0.005391	77.94251	9.742829
02-25-2015 15	155	0	1504.4	0.4200	631.8	1.8788	2826.5	154.4	1.00	59.94	0.1255	188.8022	0.025173	3.3068	0.004975	71.92551	8.990438
02-25-2015 16	160	0	1573.9	0.4060	639.0	1.8517	2914.4	161.5	1.00	62.71	0.1255	197.5245	0.026336	3.3068	0.005205	75.24622	9.405777
02-25-2015 17	165	0	1606.1	0.4060	632.1	1.8917	3038.2	164.8	1.00	63.99	0.1255	201.5656	0.026875	3.3068	0.005215	76.78566	9.59207
02-25-2015 18	165	0	1600.8	0.4240	678.7	1.8936	3031.2	164.2	1.00	63.78	0.1255	200.9004	0.026786	3.3068	0.005293	76.53227	9.566534
02-25-2015 19	166	6	1717.5	0.4300	737.7	1.9033	3260.1	176.0	1.00	68.35	0.1255	215.3078	0.028707	3.3068	0.005673	82.02072	10.25259
02-25-2015 20	169	28	1944.4	0.4840	941.1	1.9631	3817.1	199.5	1.00	77.47	0.1255	244.0222	0.032536	3.3068	0.005643	92.95336	11.161992
02-25-2015 21	171	77	2328.4	0.4130	961.6	2.0263	4718.1	238.9	1.00	92.76	0.1255	292.2142	0.038861	3.3068	0.007699	111.3179	13.91474
02-25-2015 22	171	84	2426.3	0.4760	1154.9	2.1013	5098.5	248.9	1.00	96.67	0.1255	304.5007	0.040599	3.3068	0.008023	115.9884	14.4958
02-25-2015 23	171	86	2408.4	0.4670	1124.6	2.1366	5145.1	247.1	1.00	95.94	0.1255	302.2166	0.040295	3.3068	0.007963	14.39104	13.28187
02-26-2015 00	127	86	1974.3	0.5360	2.1184	4182.4	202.6	1.00	78.66	0.1255	247.7747	0.03036	3.3068	0.005652	94.38884	11.79861	
02-26-2015 01	98	86	1731.4	0.5650	978.2	2.0999	3635.8	177.6	1.00	68.96	0.1255	217.2907	0.028972	3.3068	0.005725	82.77761	10.34707
02-26-2015 02	135	86	2074.7	0.5030	1043.6	2.1150	4388.0	212.9	1.00	82.66	0.1255	260.3749	0.034716	3.3068	0.006661	99.18884	12.298861
02-26-2015 03	160	86	2272.4	0.4950	1124.7	2.1157	4307.4	233.1	1.00	90.53	0.1255	285.1511	0.0388021	3.3068	0.007514	108.6311	13.57888
02-26-2015 04	154	86	2222.5	0.5010	1113.5	2.1150	4700.5	228.0	1.00	88.55	0.1255	278.9238	0.037189	3.3068	0.007749	106.255	13.28187
02-26-2015 05	151	86	2200.9	0.4910	1080.6	2.1049	4632.7	225.8	1.00	87.69	0.1255	276.213	0.036928	3.3068	0.007728	105.2223	13.52779
02-26-2015 06	166	87	2337.2	0.4870	1138.2	2.1041	4917.8	239.8	1.00	93.12	0.1255	293.3386	0.039109	3.3068	0.007729	111.7386	13.96733
02-26-2015 07	163	87	2303.2	0.4870	1121.7	2.0981	4832.3	236.3	1.00	91.76	0.1255	289.0516	0.038554	3.3068	0.007616	110.1131	13.76414
02-26-2015 08	163	87	2301.2	0.4520	1040.1	2.1046	4843.2	236.1	1.00	91.68	0.1255	288.8006	0.038206	3.3068	0.007612	112.9386	14.11733
02-26-2015 09	166	84	2333.9	0.4380	1022.2	2.0935	4886.0	239.5	1.00	92.98	0.1255	292.9045	0.039053	3.3068	0.007718	111.5809	13.94761
02-26-2015 10	169	87	2360.5	0.4420	1043.3	2.0960	4947.7	242.2	1.00	94.04	0.1255	296.2428	0.039498	3.3068	0.007806	112.8536	14.10657
02-26-2015 11	171	86	2394.9	0.4690	1123.2	2.1094	5051.8	245.7	1.00	95.41	0.1255	300.56	0.040074	3.3068	0.007919	114.4972	14.31215
02-26-2015 12	169	88	2350.7	0.4890	1149.5	2.0774	4883.4	241.2	1.00	93.65	0.1255	296.4687	0.039529	3.3068	0.007773	112.3841	14.04801
02-26-2015 13	169	88	2346.8	0.5000	1173.4	2.0884	4901.0	240.8	1.00	93.50	0.1255	294.5234	0.039269	3.3068	0.007716	112.1976	14.0247
02-26-2015 14	166	88	2333.6	0.5040	1176.1	2.0678	4825.4	239.4	1.00	92.97	0.1255	292.8866	0.039048	3.3068	0.007717	111.5655	13.94582

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Start Date/Time	Date/Time	YTD Gross Load MW Value	YTD Gross Load MW Value	Common Stack NOx Lb/Hr	Common Stack NOx Lb/Hr	Common Stack SO2 (lb/mmBtu)	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (lb/mmBtu)	Common Stack CO2 (lb/mmBtu)	Unit Operation minutes	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/mmBtu)	Lead (lb/hr)	Mercury (lb/mmBtu)	HCl (lb/mmBtu)	Mercury (lb/mmBtu)	HF (lb/mmBtu)	HF (lb/mmBtu)
02-26-2015 19	166	88	2330.0	0.5020	1169.7	2.0623	4805.2	239.1	1.00	92.83	0.1255	292.415	0.0389883	3.30683	0.007705	111.3944	13.9243		
02-26-2015 20	167	88	2377.6	0.5020	1168.5	2.0704	4819.1	238.8	1.00	92.73	0.1255	292.1138	0.0389483	3.30683	0.007697	111.2797	13.9096		
02-26-2015 21	167	88	2311.5	0.5030	1172.7	2.0779	4848.9	239.1	1.00	92.89	0.1255	292.6033	0.039013	3.30683	0.007711	111.4651	13.9332		
02-26-2015 22	166	88	2334.1	0.4970	1160.0	2.0778	4849.9	239.5	1.00	92.99	0.1255	292.9296	0.039057	3.30683	0.007718	111.5904	13.9488		
02-26-2015 23	154	88	2207.0	0.5080	1121.2	2.0867	4605.4	226.4	1.00	87.93	0.1255	276.9785	0.03693	3.30683	0.007293	105.5139	13.1892		
02-27-2015 00	147	88	2159.2	0.5160	1114.1	2.0754	4481.1	221.5	1.00	86.02	0.1255	270.9796	0.03613	3.30683	0.00714	103.2287	22.9035		
02-27-2015 01	146	88	2141.1	0.5120	1096.2	2.0819	4457.5	219.7	1.00	85.30	0.1255	268.7081	0.035827	3.30683	0.007038	102.3633	12.7954		
02-27-2015 02	162	88	2300.0	0.4970	1143.1	2.0855	4796.6	236.0	1.00	91.63	0.1255	288.65	0.035486	3.30683	0.007606	109.9602	13.7450		
02-27-2015 03	166	88	2340.4	0.4970	1163.2	2.0878	4886.2	240.1	1.00	93.24	0.1255	293.7202	0.039162	3.30683	0.007739	111.8916	13.9864		
02-27-2015 04	163	88	2294.8	0.5080	1165.8	2.0890	4793.8	235.4	1.00	91.43	0.1255	287.9794	0.038399	3.30683	0.007583	109.7116	13.7139		
02-27-2015 05	165	87	2281.2	0.5120	1168.0	2.1048	4801.4	234.1	1.00	90.88	0.1255	286.2906	0.036171	3.30683	0.007543	109.0514	13.6326		
02-27-2015 06	168	88	2347.1	0.5070	1190.0	2.0991	4926.8	240.8	1.00	93.51	0.1255	294.5611	0.039274	3.30683	0.007761	112.212	14.0264		
02-27-2015 07	169	88	2341.6	0.5100	1194.2	2.1045	4928.1	240.2	1.00	93.29	0.1255	293.8708	0.036182	3.30683	0.007743	111.949	13.9956		
02-27-2015 08	168	88	2343.0	0.5090	1192.6	2.1001	4920.5	240.4	1.00	93.35	0.1255	294.0465	0.039206	3.30683	0.007748	112.0159	14.0019		
02-27-2015 09	168	88	2357.6	0.5030	1181.2	2.0986	4947.7	241.9	1.00	93.93	0.1255	295.7783	0.038945	3.30683	0.007796	112.7139	14.0924		
02-27-2015 10	168	88	2328.9	0.5050	1176.1	2.1228	493.7	238.9	1.00	92.78	0.1255	292.277	0.038937	3.30683	0.007701	111.3418	13.9173		
02-27-2015 11	165	88	2300.5	0.5060	1164.1	2.1263	4891.5	236.0	1.00	91.95	0.1255	288.7128	0.038494	3.30683	0.007607	109.9841	13.7480		
02-27-2015 12	155	88	2211.4	0.5150	1138.9	2.1189	4685.7	226.9	1.00	88.10	0.1255	277.5307	0.037004	3.30683	0.007313	105.7243	13.2155		
02-27-2015 13	161	88	2250.8	0.4960	1164.6	2.1315	4797.5	230.9	1.00	89.67	0.1255	282.4754	0.037663	3.30683	0.007443	107.608	13.4551		
02-27-2015 14	152	88	2139.2	0.4980	1092.2	2.1122	4632.4	225.0	1.00	87.38	0.1255	275.2466	0.036699	3.30683	0.007252	104.8342	13.1067		
02-27-2015 15	153	88	2200.3	0.4900	1078.1	2.1163	4656.6	225.8	1.00	87.66	0.1255	276.3377	0.036818	3.30683	0.007276	110.7676	13.1492		
02-27-2015 16	155	88	2203.3	0.4980	1097.2	2.1264	4683.1	226.1	1.00	87.78	0.1255	276.5142	0.036868	3.30683	0.007286	105.3371	13.1671		
02-27-2015 17	158	88	2253.0	0.4840	1090.5	2.1179	4771.7	231.2	1.00	89.75	0.1255	282.7515	0.03777	3.30683	0.007445	107.731	13.4614		
02-27-2015 18	166	88	2300.4	0.4620	1067.8	2.1276	4894.3	236.0	1.00	91.65	0.1255	288.7002	0.038493	3.30683	0.007607	109.9793	13.7474		
02-27-2015 19	168	87	2319.9	0.4460	1034.7	2.1281	4937.0	238.0	1.00	92.43	0.1255	291.1475	0.038319	3.30683	0.007671	110.9116	13.8639		
02-27-2015 20	169	87	2344.9	0.4660	1092.7	2.1032	4931.8	240.6	1.00	93.42	0.1255	294.2835	0.039237	3.30683	0.007754	112.1068	14.0133		
02-27-2015 21	169	88	2348.1	0.4930	1157.6	2.0976	4925.3	240.9	1.00	93.55	0.1255	294.6866	0.039291	3.30683	0.007765	112.2598	14.0324		
02-27-2015 22	167	86	2331.5	0.4930	1149.4	2.0985	4892.7	239.2	1.00	92.89	0.1255	292.6033	0.039013	3.30683	0.007650	111.4661	13.9332		
02-27-2015 23	169	86	2311.3	0.5030	1162.6	2.1231	4907.1	237.1	1.00	92.61	0.1255	290.0682	0.038675	3.30683	0.007643	110.5004	13.8125		
02-28-2015 00	115	87	18727	0.5880	1101.1	2.0916	3916.9	192.1	1.00	74.61	0.1255	235.0239	0.031336	3.30683	0.006193	89.5347	11.1914		
02-28-2015 01	99	88	1736.5	0.6070	1054.1	2.0798	3611.5	178.2	1.00	69.18	0.1255	217.9308	0.029057	3.30683	0.005742	83.0192	10.3749		
02-28-2015 02	114	89	1892.6	0.5810	1093.6	2.0630	3904.5	194.2	1.00	75.40	0.1255	237.5213	0.031669	3.30683	0.006258	94.0485	11.3103		
02-28-2015 03	147	91	2187.1	0.5210	1139.5	2.0742	4536.5	224.4	1.00	87.14	0.1255	274.4813	0.036597	3.30683	0.007322	104.5625	13.0703		
02-28-2015 04	162	90	2302.1	0.5080	1169.5	2.0757	4778.4	236.2	1.00	91.72	0.1255	288.9136	0.038211	3.30683	0.007613	110.0506	13.7577		
02-28-2015 05	163	87	2259.5	0.5050	1141.0	2.0781	4695.5	231.8	1.00	90.02	0.1255	283.5673	0.037804	3.30683	0.007247	108.0239	13.5029		
02-28-2015 06	164	87	2289.1	0.4950	1133.1	2.0798	4745.3	234.9	1.00	90.20	0.1255	287.2821	0.038304	3.30683	0.007574	109.439	13.6793		
02-28-2015 07	170	87	2352.8	0.4960	1167.0	2.0589	4944.1	241.4	1.00	93.74	0.1255	295.2764	0.039337	3.30683	0.00778	112.4845	14.0605		
02-28-2015 08	170	87	2359.3	0.5030	1186.7	2.0473	4831.5	242.1	1.00	94.00	0.1255	296.0922	0.039478	3.30683	0.007802	112.7952	14.0994		
02-28-2015 09	170	88	2353.8	0.5010	1179.3	2.0537	4834.0	241.5	1.00	93.78	0.1255	295.4019	0.039386	3.30683	0.007783	112.5323	14.0663		
02-28-2015 10	170	87	2345.5	0.5050	1184.5	2.0479	4803.4	240.6	1.00	93.45	0.1255	294.3603	0.039247	3.30683	0.007756	112.1355	14.0169		
02-28-2015 11	170	87	2354.0	0.5000	1177.0	2.0248	4766.4	241.5	1.00	93.78	0.1255	295.427	0.03939	3.30683	0.007784	112.5438	14.0677		
02-28-2015 12	158	87	2238.1	0.5150	1152.6	2.0161	4512.3	229.6	1.00	89.17	0.1255	280.8816	0.037485	3.30683	0.007401	107.0008	13.3751		
02-28-2015 13	151	87	2171.8	0.5130	1114.1	2.0116	4368.8	222.8	1.00	86.53	0.1255	272.5509	0.036541	3.30683	0.007812	103.8311	12.9788		
02-28-2015 14	152	87	2183.7	0.4990	1089.7	2.0036	4375.3	224.1	1.00	87.00	0.1255	274.0544	0.03554	3.30683	0.007221	104.4	13.05		
02-28-2015 15	139	87	2092.8	0.5190	1086.2	1.9890	4183.6	214.7	1.00	83.38	0.1255	262.6464	0.035019	3.30683	0.00682	100.0542	12.5067		
02-28-2015 16	160	87	2256.0	0.5000	1128.0	2.0093	4533.0	231.5	1.00	89.88	0.1255	283.128	0.03775	3.30683	0.00746	107.8556	13.4820		
02-28-2015 17	153	87	2205.4	0.5010	1104.9	1.9901	4383.9	226.3	1.00	87.86	0.1255	276.7777	0.036903	3.30683	0.007293	105.4375	13.1796		

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack NOx lb/mmBtu	Common Stack NOx lb/Hr	Common Stack SO2 lb/mmBtu	Common Stack SO2 lb/Hr	Common Stack CO2 (t/mmBtu)	Common Stack CO2 (ton/Hr)	Unit Operation (minutes)	Crat Tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/mmBtu)	Lead (lb/Hr)	Mercury (lb/mmBtu)	Mercury (lb/Hr)	HCl (lb/mmBtu)	HCl (lb/Hr)	HF (lb/mmBtu)	HF (lb/Hr)
02-28-2015 18	163	87	2272.3	0.5090	1143.0	1.9929	4528.4	233.1	1.00	90.55	0.1255	285.1737	0.036023	3.3068	0.007514	108.6359	13.57948			
02-28-2015 19	164	87	2286.9	0.5060	1157.2	1.9883	4547.1	234.6	1.00	91.11	0.1255	287.006	0.036267	3.3068	0.007562	109.3339	13.66673			
02-28-2015 20	164	85	2333.3	0.5080	1175.2	1.9786	4577.1	237.3	1.00	92.16	0.1255	290.3192	0.038709	3.3068	0.007656	110.5956	13.8245			
02-28-2015 21	164	87	2321.3	0.5070	1176.9	1.9763	4587.6	238.2	1.00	92.48	0.1255	291.3232	0.038842	3.3068	0.007676	110.9785	13.87231			
02-28-2015 22	164	86	2312.3	0.5100	1179.3	1.9741	4564.6	237.2	1.00	92.12	0.1255	290.1937	0.036692	3.3068	0.007646	110.5482	13.81833			
02-28-2015 23	164	86	2303.3	0.5090	1172.4	1.9744	4547.6	236.3	1.00	91.76	0.1255	289.0642	0.038541	3.3068	0.007616	110.1179	13.76474			
03-01-2015 00	140	87	2105.0	0.5210	1096.7	1.9639	4134.0	216.0	1.00	83.86	0.1255	264.1775	0.035223	3.3068	0.007508	108.545	12.57968			
03-01-2015 01	158	86	2270.4	0.5070	1151.1	1.9691	4470.7	232.9	1.00	90.45	0.1255	284.9352	0.037991	3.3068	0.007508	108.9912	13.56813			
03-01-2015 02	157	87	2237.9	0.5140	1150.3	1.9721	4413.4	229.6	1.00	89.16	0.1255	280.8565	0.037447	3.3068	0.007474	108.6454	13.3739			
03-01-2015 03	159	87	2272.5	0.5180	1177.2	1.9619	4456.4	233.2	1.00	90.54	0.1255	285.1988	0.038026	3.3068	0.007515	108.5868	13.58068			
03-01-2015 04	144	87	2076.1	0.5350	1110.7	1.9642	4077.8	213.0	1.00	82.71	0.1255	260.5506	0.03474	3.3068	0.006865	99.25578	12.40697			
03-01-2015 05	159	86	2254.3	0.4920	1109.1	1.9844	4473.4	231.3	1.00	89.81	0.1255	282.9447	0.037721	3.3068	0.007454	107.7753	13.47191			
03-01-2015 06	161	87	2289.8	0.4870	1115.1	1.9643	4497.9	234.9	1.00	91.23	0.1255	287.5699	0.038315	3.3068	0.007572	109.4725	13.68406			
03-01-2015 07	160	87	2278.8	0.4970	1132.6	1.9552	4455.5	233.8	1.00	90.79	0.1255	285.3894	0.038131	3.3068	0.007535	108.9466	13.61833			
03-01-2015 08	164	87	2290.9	0.5080	1152.3	1.9568	4482.9	235.0	1.00	91.27	0.1255	287.508	0.038334	3.3068	0.007575	109.5251	13.69064			
03-01-2015 09	164	87	2285.2	0.5020	1147.2	1.9607	4480.6	234.5	1.00	91.04	0.1255	286.7926	0.038238	3.3068	0.007557	109.25236	13.65657			
03-01-2015 10	160	88	2279.4	0.4910	1119.2	1.9458	4435.2	233.9	1.00	90.81	0.1255	286.0647	0.038141	3.3068	0.007537	108.9753	13.60617			
03-01-2015 11	164	87	2296.8	0.4980	1133.8	1.9567	4500.0	236.0	1.00	91.63	0.1255	288.6249	0.038483	3.3068	0.007605	109.9506	13.74382			
03-01-2015 12	164	87	2299.1	0.4950	1138.1	1.9650	4517.7	235.9	1.00	91.60	0.1255	288.5571	0.038471	3.3068	0.007603	109.9171	13.73964			
03-01-2015 13	164	87	2300.5	0.4970	1143.3	1.9676	4526.4	236.0	1.00	91.65	0.1255	288.7128	0.038494	3.3068	0.007607	109.9841	13.74801			
03-01-2015 14	164	87	2303.1	0.4970	1144.6	1.9667	4529.4	236.3	1.00	91.76	0.1255	289.0391	0.038538	3.3068	0.007616	110.1084	13.77355			
03-01-2015 15	164	87	2315.1	0.4980	1152.9	1.9499	4514.3	237.5	1.00	92.24	0.1255	290.5451	0.038739	3.3068	0.007656	110.6821	13.83526			
03-01-2015 16	164	87	2311.4	0.5010	1158.0	1.9531	4514.5	237.2	1.00	92.09	0.1255	290.0807	0.038677	3.3068	0.007643	110.5052	13.81315			
03-01-2015 17	164	87	2307.5	0.5050	1167.6	1.9467	4492.1	236.8	1.00	91.93	0.1255	289.5913	0.038612	3.3068	0.007633	110.3187	13.78984			
03-01-2015 18	164	87	2307.4	0.5074	1165.2	1.9319	4457.7	236.7	1.00	91.93	0.1255	289.5787	0.038361	3.3068	0.007613	110.1084	13.78924			
03-01-2015 19	164	87	2309.4	0.5210	1209.2	1.9321	4462.1	236.9	1.00	92.01	0.1255	289.8297	0.038643	3.3068	0.007563	110.4096	13.80112			
03-01-2015 20	163	87	2273.5	0.5080	1154.9	1.9329	4394.5	233.3	1.00	90.58	0.1255	285.3243	0.038043	3.3068	0.007518	108.6982	13.58665			
03-01-2015 21	164	87	2294.6	0.4920	1128.9	1.9393	4450.0	235.4	1.00	91.42	0.1255	287.9723	0.038396	3.3068	0.007588	109.702	13.71275			
03-01-2015 22	162	87	2286.2	0.4980	1138.5	1.9311	4414.9	234.6	1.00	91.08	0.1255	286.9381	0.038255	3.3068	0.00758	109.3004	13.66255			
03-01-2015 23	127	87	1990.6	0.5360	1067.0	1.9833	3848.5	204.2	1.00	79.31	0.1255	249.8203	0.033939	3.3068	0.006582	95.16813	11.89602			
03-02-2015 00	98	87	1729.1	0.5350	925.1	1.9803	3337.7	177.4	1.00	68.89	0.1255	217.0021	0.028933	3.3068	0.005718	84.39203	10.549			
03-02-2015 01	98	87	1737.2	0.5210	905.1	1.9449	3378.7	178.2	1.00	69.21	0.1255	218.0186	0.029069	3.3068	0.005745	83.05339	10.38167			
03-02-2015 02	98	87	1732.0	0.5160	893.7	1.9573	3390.0	177.7	1.00	69.00	0.1255	217.366	0.028882	3.3068	0.005727	82.80478	10.3506			
03-02-2015 03	98	87	1734.2	0.5170	896.6	1.9529	3386.7	177.9	1.00	69.09	0.1255	217.6421	0.029018	3.3068	0.005735	82.90996	10.36375			
03-02-2015 04	100	87	1765.2	0.5050	891.4	1.9478	3438.2	181.1	1.00	70.33	0.1255	221.5226	0.029537	3.3068	0.005837	84.39203	10.549			
03-02-2015 05	107	87	1816.5	0.4800	871.9	1.9761	3589.5	186.4	1.00	72.37	0.1255	227.9708	0.030396	3.3068	0.007056	86.84462	10.85555			
03-02-2015 06	122	87	1943.0	0.4870	946.2	1.9906	3867.7	199.4	1.00	77.41	0.1255	243.8465	0.032512	3.3068	0.006425	92.89243	11.61155			
03-02-2015 07	152	87	2200.6	0.5170	1137.7	1.9834	4364.6	225.8	1.00	87.67	0.1255	276.1753	0.036823	3.3068	0.007277	105.208	13.151			
03-02-2015 08	166	87	2328.7	0.5140	1197.0	1.9887	4631.2	238.9	1.00	92.78	0.1255	292.2519	0.038966	3.3068	0.0077	111.3323	13.94653			
03-02-2015 09	166	87	2329.9	0.5040	1174.3	1.9880	4631.8	239.0	1.00	92.82	0.1255	292.4025	0.038986	3.3068	0.007704	111.38956	13.93371			
03-02-2015 10	146	87	2133.8	0.5140	1096.8	1.9940	4254.7	218.9	1.00	85.01	0.1255	267.7919	0.035705	3.3068	0.007056	102.0143	12.75179			
03-02-2015 11	113	87	1846.2	0.5430	1002.5	1.9817	3658.6	189.4	1.00	73.55	0.1255	231.6981	0.030893	3.3068	0.006105	88.26454	11.03307			
03-02-2015 12	98	87	1736.4	0.5050	876.9	1.9708	3422.1	178.2	1.00	69.18	0.1255	217.9182	0.029095	3.3068	0.005742	83.0154	10.37689			
03-02-2015 13	98	87	1740.0	0.5170	899.6	1.9677	3423.8	178.5	1.00	69.32	0.1255	218.37	0.029116	3.3068	0.005745	83.18725	10.39841			
03-02-2015 14	98	87	1722.4	0.5380	926.7	1.9707	3394.4	176.7	1.00	68.62	0.1255	216.1612	0.028821	3.3068	0.005636	82.34582	10.29323			
03-02-2015 15	98	87	1717.7	0.5440	934.4	1.9637	3373.1	176.2	1.00	68.43	0.1255	215.5714	0.028742	3.3068	0.00588	82.12112	10.26514			
03-02-2015 16	98	87	1726.5	0.5500	949.6	1.9507	3368.0	177.2	1.00	68.79	0.1255	216.6883	0.028891	3.3068	0.005799	82.34661	10.31833			

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Date/Time	Date/Hour	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack NOx Lb/MWh	Common Stack NOx Lb/MWh	Common Stack SO2 (lb/mmbtu)	Common Stack SO2 (lb/mmbtu)	Common Stack CO2 (ton/h)	Common Stack CO2 (ton/h)	Unit Operation (minutes)	Crat ton/hr	PM-10 (lb/mmBtu)	PM-10 (lb/mmBtu)	Lead (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)	
03-02-2015	17	98	87	1729.0	0.5480	947.5	1.9472	3366.7	177.4	1.00	68.38	0.1255	216.9895	0.028931	3.3068	0.005717	82.665135	10.33267
03-02-2015	18	98	87	1705.5	0.5510	939.7	1.9606	3343.8	175.0	1.00	67.95	0.1255	214.0403	0.028538	3.3068	0.00564	81.53785	10.19223
03-02-2015	19	98	88	1726.1	0.5400	932.1	1.9560	3376.2	177.1	1.00	68.77	0.1255	216.6256	0.028883	3.3068	0.005708	82.52271	10.31534
03-02-2015	20	104	87	1762.9	0.5290	932.6	1.9711	3474.8	180.9	1.00	70.24	0.1255	221.244	0.029499	3.3068	0.00583	84.28207	10.53526
03-02-2015	21	122	87	1921.1	0.5290	1016.3	1.9852	3815.6	197.1	1.00	76.54	0.1255	241.0981	0.032146	3.3068	0.006353	91.84542	11.48068
03-02-2015	22	125	87	1960.1	0.5480	1074.1	1.9757	3872.5	201.1	1.00	78.09	0.1255	245.9926	0.032798	3.3068	0.006482	93.70996	11.71375
03-02-2015	23	123	87	1942.3	0.5560	1079.9	1.9929	3870.9	199.3	1.00	77.38	0.1255	243.7587	0.031501	3.3068	0.006423	92.85896	11.60737
03-03-2015	00	109	87	1818.8	0.5580	1014.9	1.9904	3620.2	186.6	1.00	72.46	0.1255	228.2594	0.030434	3.3068	0.0065014	86.95458	10.86932
03-03-2015	01	98	88	1727.1	0.5440	939.5	1.9847	3427.8	177.2	1.00	68.31	0.1255	216.7511	0.0289	3.3068	0.005711	82.5674	10.32131
03-03-2015	02	98	87	1727.0	0.5100	880.8	1.9399	3436.6	177.2	1.00	68.02	0.1255	216.7385	0.028898	3.3068	0.005711	82.5674	10.32072
03-03-2015	03	95	60	1460.3	0.5970	371.8	1.8183	2655.2	149.8	1.00	58.18	0.1255	183.2677	0.024435	3.3068	0.004829	69.84514	8.726892
03-03-2015	04	55	0	613.1	0.4450	272.8	1.6178	991.9	62.9	1.00	24.43	0.1255	76.94405	0.010259	3.3068	0.00202	29.31155	3.663944
03-03-2015	05	1	1	1	0.9931	1.6179	1.6179	1.6179	1.6179	0.07	1.65	0.1255	5.198963	0.000693	3.3068	0.000137	1.980526	0.247566
03-03-2015	06	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	07	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	08	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	09	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	10	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	11	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	12	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	13	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	14	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	15	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	16	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	17	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	18	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	19	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	20	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	21	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	22	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-03-2015	23	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	00	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	01	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	02	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	03	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	04	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	05	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	06	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	07	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	08	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	09	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	10	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	11	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	12	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	13	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	14	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	
03-04-2015	15	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	

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Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
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Date-Hour Date	YTG1 Gross Load MW Value	YTG2 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/Hr	Common Stack SO2 (Lb/Hr)	Common Stack CO2 (tBMMBtu)	Unit Operation Coast/Start (minutes)	Coast/Stop (minutes)	PM-10 (tBMMBtu)	PM-10 (Lb/Hr)	Lead (tBMMBtu)	Lead (Lb/Hr)	Mercury (tBMMBtu)	Mercury (Lb/Hr)	HF (tBMMBtu)	HF (Lb/Hr)
03-06-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-06-2015 16	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-06-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-06-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-06-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-06-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-06-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-06-2015 22	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-06-2015 23	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 00	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 01	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 07	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 08	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 11	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 13	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 14	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 16	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 22	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-07-2015 23	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 00	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 01	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 07	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 08	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 11	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	
03-08-2015 13	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0	0	

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Date-Hour	Y01 Gross Load MW Value	YT02 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/Hr	Common Stack SO2 (Lb/Hr)	Common Stack CO2 (t/hr)	Common Stack Unit Operation (minutes)	Coal ton/hr	PM-10 (lb/mmBtu)	Lead (lb/hr)	Mercury (lb/Thh)	HCl (lb/hr)	HF (lb/hr)
03-08-2015 14	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-08-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-08-2015 16	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-08-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-08-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-08-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-08-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-08-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-08-2015 22	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-08-2015 23	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 00	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 01	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 07	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 08	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 11	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 13	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 14	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 16	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 22	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-09-2015 23	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 00	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 01	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 07	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 08	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 11	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0
03-10-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0	0.0000	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	Date/Hour	Y001 Gross Load Mw Value	Y002 Gross Load Mw Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lbm/MBtu	Common Stack SO2 (Lbm/Hr)	Common Stack CO2 (Lbm/Hr)	Common Stack Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/MMBtu)	Mercury (lb/hr)	HF (lb/hr)
03-10-2015 13	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-10-2015 14	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-10-2015 15	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-10-2015 16	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-10-2015 17	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-10-2015 18	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-10-2015 19	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-10-2015 20	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-10-2015 21	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-10-2015 22	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-10-2015 23	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 00	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 01	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 02	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 03	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 04	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 05	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 06	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 07	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 08	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 09	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 10	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 11	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 12	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 13	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 14	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 15	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 16	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 17	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 18	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 19	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 20	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 21	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 22	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-11-2015 23	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-12-2015 00	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-12-2015 01	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-12-2015 06	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-12-2015 07	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-12-2015 08	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-12-2015 09	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-12-2015 10	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0
03-12-2015 11	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0	0.1255	0	0	0.0000	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
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SPLASH Data	Date/Time	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx (lb/Hr)	Common Stack SO2 (lb/MMBtu)	Common Stack CO2 (lb/MMBtu)	Unit Operation (minutes)	Coating/shr	PM-10 (lb/mm3Ba)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/TBW)	HCl (lb/hr)	HF (lb/hr)
	03-12-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-12-2015 13	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-12-2015 14	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-12-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-12-2015 16	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-12-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-12-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-12-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-12-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-12-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-12-2015 22	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-12-2015 23	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 00	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 01	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 07	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 08	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 11	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 13	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 14	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 16	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 22	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-13-2015 23	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-14-2015 00	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-14-2015 01	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-14-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-14-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-14-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-14-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-14-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-14-2015 07	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-14-2015 08	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-14-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0
	03-14-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.00	0.0000	0	0	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
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Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
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Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/Hr	Common Stack NOx Lb/MMBtu	Common Stack SO2 (lb/MMBtu)	Common Stack CO2 (lb/MMBtu)	Unit Operation (minutes)	Clean tonnage (tons/h)	PM-10 (#/mmcuBtu)	PM-10 (lb/mmBtu)	Lead (lb/mm)	Mercury (lb/mm)	HCl (lb/mm)	HF (lb/mm)
03-16-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-16-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-17-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-18-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-18-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-18-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-18-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-18-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-18-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-18-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-18-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0
03-18-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.1255	0	0.0000	0	0.0000	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
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Date/Time	Date/Hour	YTO1 Gross Load MW Value	YTO2 Gross Load MW Value	Common Stack Heat Input. (MMBtu)	Common Stack NOx Lb/Hr	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (lb/mmBtu)	Common Stack Unit Operation (minute)	Coal tons/hr	PM-10 (lb/mmBtu)	Lead (lb/hr)	Mercury (lb/MMBtu)	HCl (lb/hr)	HF (lb/hr)
03-18-2015 09	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 10	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 11	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 12	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 13	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 14	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 15	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 16	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 17	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 18	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 19	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 20	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 21	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 22	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-18-2015 23	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 00	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 01	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 02	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 03	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 04	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 05	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 06	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 07	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 08	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 09	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 10	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 11	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 12	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 13	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 14	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 15	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 16	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 17	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 18	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 19	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 20	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 21	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 22	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-19-2015 23	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-20-2015 00	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-20-2015 01	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-20-2015 02	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-20-2015 03	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-20-2015 04	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-20-2015 05	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-20-2015 06	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0
03-20-2015 07	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0	0.0000	0	0

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Date/Time	Y101 Gross Load MW	Y102 Gross Load MW	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/Hr	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (lb/mmBtu)	Common Stack Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/mmBtu)	Lead (lb/mm)	Mercury (lb/mm)	HCl (lb/mm)	HF (lb/mm)
03-20-2015 08	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 11	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 13	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 14	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 16	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 22	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-20-2015 23	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 00	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 01	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 07	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 08	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 11	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 13	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 14	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 16	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-21-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-22-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-22-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-22-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-22-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0
03-22-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0000	0	0.0000	0	0

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Substance	Date/Time	Y01 Gross Load MW Value	YT02 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/MWh	Common Stack SO2 (Lb/MMBtu)	Common Stack CO2 (Lb/MMBtu)	Common Stack CO2 (tons/hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mm-Btu)	PM-10 (lb/hr)	Lead (lb/hr)	Mercury (lb/TTBtu)	HCl (lb/hr)	HF (lb/hr)
	03-30-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-30-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	03-31-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-01-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-01-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Hour	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack NOx Lb/Hr	Common Stack SO2 (Lb/Hr)	Common Stack CO2 (t/hr)	Common Stack Unit Operation (minutes)	Coal ton/hr	PM-10 (lb/mmstu)	PM-10 (Lb/hr)	Lead (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
04-01-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 07	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 08	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 11	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 13	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 14	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 16	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 22	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-01-2015 23	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 00	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 01	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 07	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 08	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 11	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 13	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 14	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 16	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 22	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-02-2015 23	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0
04-03-2015 00	0	0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.00	0.0000	0	0.0000	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	Date/Hour	YTF1 Gross Load MW Value	YTF2 Gross Load MW Value	Common Stack Heat Inlet (mmBtu)	Common Stack NOx Lbm/Hr	Common Stack NOx Lbm/Btu	Common Stack SO2 lb/mmBtu	Common Stack CO2 (lb/MWh)	Common Stack CO2 (tons/hr)	Unit Operation (minutes)	Cost/tonghr	Mercury (lb/hrs)	HCl (lb/hrs)	HF (lb/hrs)
04-03-2015 01	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 02	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 03	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 04	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 05	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 06	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 07	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 08	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 09	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 10	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 11	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 12	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 13	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 14	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 15	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 16	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 17	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 18	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 19	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 20	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 21	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 22	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-03-2015 23	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 00	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 01	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 02	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 03	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 04	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 05	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 06	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 07	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 08	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 09	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 10	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 11	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 12	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 13	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 14	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 15	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 16	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 17	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 18	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 19	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 20	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 21	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 22	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0
04-04-2015 23	0	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.0000	0	0.0000	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
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Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
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Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

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Dominion Energy - Yarktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Head/Output (mmBtu)	Common Stack NOx Lb/Hr	Common Stack SO2 (lb/mmBtu)	Common Stack CO2 (ton/Hr)	Common Stack Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
04-12-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-12-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-12-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-12-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 19	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 20	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 21	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 22	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-13-2015 23	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 00	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 01	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 02	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 03	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 04	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 05	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 06	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 07	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 08	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 09	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 10	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 11	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 12	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 13	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 14	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 15	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 16	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 17	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0
04-14-2015 18	0	0	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0	0	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Stack Data	Date/Hour	YTO1 Gross Load MW Value	TTO2 Gross Load MW Value	Common Stack Heat Input /mmBtu	Common Stack NOx Load	Common Stack SO2 lb/mmBtu	Common Stack CO2 (lb/mmBtu)	Common Stack Unit Operation	Coat tons/hr	PM-10 (lb/hr)	PM-10 (lb/mmBtu)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/TBtu)	HCl (lb/hr)	HF (lb/hr)
	04-14-2015 19	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-14-2015 20	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-14-2015 21	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-14-2015 22	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-14-2015 23	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 00	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 01	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 02	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 03	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 04	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 05	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 06	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 07	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 08	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 09	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 10	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 11	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 12	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 13	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 14	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 15	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 16	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 17	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 18	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 19	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 20	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 21	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 22	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-15-2015 23	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 00	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 01	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 02	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 03	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 04	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 05	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 06	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 07	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 08	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 09	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 10	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 11	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 12	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 13	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 14	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 15	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 16	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0
	04-16-2015 17	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.0000	0.0	0.0	0.00000	0	0	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Substance	Date/Hour	Y001 Gross Load MW Value	Y002 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lbm/Mhr	Common Stack CO2 (Lbm/Hr)	Common Stack SO2 (Lbm/Hr)	Common Stack CO2 (Tonsh/Hr)	Common Stack Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/TBtu)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
04-16-2015 18	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-16-2015 19	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-16-2015 20	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-16-2015 21	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-16-2015 22	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-16-2015 23	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 00	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 01	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 02	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 03	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 04	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 05	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 06	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 07	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 08	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 09	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 10	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 11	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 12	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 13	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 14	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 15	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 16	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 17	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 18	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 19	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 20	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 21	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 22	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-17-2015 23	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 00	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 01	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 02	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 03	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 04	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 05	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 06	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 07	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 08	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 09	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 10	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 11	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 12	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 13	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 14	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 15	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0
04-18-2015 16	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.0	0.00	0.00	0.0	0.0000	0	0	0	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Start Date Time Data	Date/Hour	YTO1 Gross Load MW Value	YTO2 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lbm/Hr	Common Stack SO2 (lb/MMBtu)	Common Stack CO2 (ton/Hr)	Common Stack Unit Operation (minutes)	Coal ash/hr	PM-10 (Lbm/Hr)	PM-10 (ton/MMBtu)	Lead (lb/hr)	Mercury (lb/Thh)	Mercury (lb/TBtu)	HCl (lb/hr)	HF (lb/hr)
	04-18-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-18-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-18-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-18-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-18-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-18-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-18-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-19-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0
	04-20-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.00	0.1255	0	0	0.0000	0	0

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Hourly Mass Emissions
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Date/Hour	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/hr	Common Stack SO2 (lb/mmbtu)	Common Stack CO2 (ton/hr)	Common Stack Unit Operation (minutes)	Coal ton/hr	PM-10 (lb/mmBtu)	PM-10 Lead (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
04-20-2015 16	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-20-2015 17	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-20-2015 18	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-20-2015 19	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-20-2015 20	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-20-2015 21	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-20-2015 22	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-20-2015 23	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 00	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 01	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 02	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 03	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 04	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 05	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 06	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 07	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 08	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 09	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 10	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 11	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 12	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 13	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 14	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 15	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 16	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 17	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 18	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 19	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 20	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 21	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 22	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-21-2015 23	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 00	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 01	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 02	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 03	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 04	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 05	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 06	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 07	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 08	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 09	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 10	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 11	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 12	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 13	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0
04-22-2015 14	0	0	0.00000	0.0	0.00000	0.0	0.0	0.00	0.000	0.0	0.00000	0	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
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Stack Number	Date/Hours	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Gross Load MW Value	Common Stack Heat Input : (MMBtu)	Common Stack NOx Lb/Mhr	Common Stack SO2 (Lb/Mhr)	Common Stack CO2 (ton/hrs)	Common Stack CO2 (lb/mhr)	Unit Operation	Cost/tong/hr	PM-10 (#mmblu)	PM-10 [lbf/hr]	Lead (lb/hr)	Mercury (lb/mr)	Mercury (ton/hrs)	HCl (lb/hr)	HF (lb/hr)
	04-22-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-22-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-22-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-22-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-22-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-22-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-22-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-22-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-22-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-23-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	
	04-24-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.00	0.0	0.00	0.1255	0	0.0000	0	0.0000	0	

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

Hourly Mass Emissions

January 1, 2015 through November 26, 2017

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Scheduling Date	Date/Hour	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack Heat Input (mmBtu)	Common Stack NOx Lbm/MW	Common Stack CO2 (Lbm/MW)	Common Stack SO2 (Lbm/MW)	Common Stack CO2 (ton/hr)	Unit Operation (minutes)	Cost/tон/ч	PM-10 (lb/MH)	PM-10 (lb/MH)	Lead (lb/MH)	Mercury (lb/MH)	HCl (lb/MH)	HF (lb/MH)
04-26-2015 13	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-26-2015 14	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-26-2015 15	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-26-2015 16	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-26-2015 17	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-26-2015 18	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-26-2015 19	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-26-2015 20	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-26-2015 21	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-26-2015 22	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-26-2015 23	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 00	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 01	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 02	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 03	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 04	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 05	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 06	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 07	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 08	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 09	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 10	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 11	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 12	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 13	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 14	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 15	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 16	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 17	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 18	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 19	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-27-2015 20	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-28-2015 01	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-28-2015 02	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-28-2015 03	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-28-2015 04	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-28-2015 05	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-28-2015 06	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-28-2015 07	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-28-2015 08	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-28-2015 09	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-28-2015 10	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0
04-28-2015 11	0	0	0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.1255	0	0.0000	0	0.0000	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date\Hour	Y01 Gross Load MW Value	Y02 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/Hr	Common Stack NOx Lb/Hr	Common Stack CO2 (Lbm/MWh)	Common Stack CO2 (Ton/Hr)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/hr)	Mercury (lb/mmBtu)	Mercury (lb/hr)	HCl (lb/mmBtu)	HCl (lb/hr)
04-28-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-28-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-28-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-28-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-28-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-28-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-28-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-28-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-28-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-28-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-28-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-28-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-29-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-30-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-30-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-30-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-30-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-30-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-30-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-30-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-30-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-30-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-30-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0
04-30-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.000	0.0	0.0	0.0	0.0000	0	0.0000	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Date/Time	Y01 Gross Load MW	Y02 Gross Load MW	Gross Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/Hr	Common Stack SO2 (Lb/Hr)	Common Stack CO2 (Ton/Hr)	Common Stack Unit Operation	Coal tons/hr	PM-10 (lb/Hr)	Lead (lb/Hr)	Mercury (lb/Hr)	HCl (lb/Hr)	HF (lb/Hr)
04-30-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
04-30-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-01-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-02-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-02-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-02-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-02-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-02-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-02-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-02-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-02-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-02-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0
05-02-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.0000	0.0	0.0000	0.0	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack Hourly Mass Emissions

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
 Hourly Mass Emissions
 January 1, 2015 through November 26, 2017

Substance	Date/Hour	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/Hr	Common Stack NOx Lb/MW	Common Stack SO2 (lb/Hr)	Common Stack SO2 (lb/MMBtu)	Common Stack CO2 (ton/Hr)	Common Stack CO2 (lb/MMBtu)	Unit Operation (minutes)	Coal tons/hr	PM-10 (lb/mmBtu)	PM-10 (lb/Hr)	Lead (lb/Hr)	Mercury (lb/Hr)	HCl (lb/Hr)	HF (lb/Hr)
NOx	05-04-2015 09	0	0	147,750	0.9927	0.0000	0.0	0.0	0.0	0.0	0.08	0.30	0.1255	0.95882	0.0001228	3.3068	2.53E-05	0.46567
NOx	05-04-2015 10	0	0	147,948	0.9927	0.0000	0.0	0.0	0.0	0.0	0.00	0.380	0.1255	11.98525	0.0001598	3.3068	0.000316	4.565737
NOx	05-04-2015 11	0	0	147,559	0.9928	0.0000	0.0	0.0	0.0	0.0	0.00	0.77	0.128	0.02968	0.000537	3.3068	0.000106	1.535092
NOx	05-04-2015 12	0	0	147,339	0.9925	0.0000	0.0	0.0	0.0	0.0	0.00	1.60	0.1255	5.0451	0.000673	3.3068	0.000133	1.921912
NOx	05-04-2015 13	0	0	147,192	0.9926	0.0000	0.0	0.0	0.0	0.0	0.00	1.62	0.1255	5.10785	0.000681	3.3068	0.000135	1.945817
NOx	05-04-2015 14	0	0	147,101	0.9926	0.0000	0.0	0.0	0.0	0.0	0.00	1.61	0.1255	5.0702	0.000676	3.3068	0.000134	1.931474
NOx	05-04-2015 15	0	0	147,101	0.9926	0.0000	0.0	0.0	0.0	0.0	0.00	1.61	0.1255	5.0702	0.000676	3.3068	0.000134	1.931474
NOx	05-04-2015 16	0	0	147,077	0.9924	0.0000	0.0	0.0	0.0	0.0	0.12	0.19	0.59487	7.93E-05	3.3068	1.57E-05	0.226614	0.028327
NOx	05-04-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-04-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-04-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-04-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-04-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-04-2015 22	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-04-2015 23	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 00	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 01	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 07	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 08	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 09	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 10	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 11	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 12	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 13	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 14	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 15	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 16	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 17	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 18	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 19	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 20	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 21	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 22	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-05-2015 23	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-06-2015 00	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-06-2015 01	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-06-2015 02	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-06-2015 03	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-06-2015 04	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-06-2015 05	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-06-2015 06	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0
NOx	05-06-2015 07	0	0	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.00	0.00	0.1255	0	0.0000	0	0.0000	0

Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack
Hourly Mass Emissions
January 1, 2015 through November 26, 2017

Date/Hour	Y101 Gross Load MW Value	Y102 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lbm/MBtu	Common Stack SO2 (Lbm/MBtu)	Common Stack CO2 (Lbm/MBtu)	Common Stack Unit Operation (minutes)	Combined Stack Unit Operation (minutes)	Lead (lb/hr)	PM-10 (lb/m3hr)	PM-10 (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
05-06-2015 08	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 09	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 10	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 11	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 12	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 13	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 14	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 15	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 16	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 17	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 18	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 19	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 20	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 21	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 22	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-06-2015 23	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 00	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 01	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 02	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 03	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 04	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 05	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 06	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 07	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 08	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 09	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 10	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 11	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 12	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 13	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 14	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 15	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 16	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 17	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 18	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 19	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 20	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 21	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 22	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-07-2015 23	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-08-2015 00	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-08-2015 01	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-08-2015 02	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-08-2015 03	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-08-2015 04	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-08-2015 05	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0
05-08-2015 06	0	0	0.00000	0.0	0.00000	0.0	0.0	0.0	0.00	0.0	0.0	0.00000	0	0

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Dominion Energy - Yorktown Power Station - Units 1 and 2 Combined Stack

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Date/Hour Data Date	YTD1 Gross Load MW Value	YTD2 Gross Load MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx (lb/hr)	Common Stack SC2 (lb/hr)	Common Stack O2 (lb/hr)	Common Stack CO2 (ton/hr)	Unit Operation (minutes)	Coal ash/hr	PM-10 (lb/hr)	PM-10 (lb/mmBtu)	Lead (lb/hr)	Mercury (lb/hr)	Mercury (lb/tonBtu)	HC (lb/hr)	HF (lb/hr)
05-12-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-12-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 04	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 05	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 06	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 07	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 08	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 09	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 10	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 11	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 12	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 13	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 14	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 15	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 16	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 17	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 18	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 19	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 20	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 21	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 22	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-13-2015 23	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-14-2015 00	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-14-2015 01	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-14-2015 02	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	
05-14-2015 03	0	0	0.0	0.0000	0.0	0.0000	0.0	0.0	0.00	0.00	0.1255	0	0.0000	0	0	

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Date-Hour	Y101 Gross Lead MW Value	Y102 Gross Lead MW Value	Common Stack Heat Input (MMBtu)	Common Stack NOx Lb/Hr	Common Stack SO2 (Lbm/Btu)	Common Stack CO2 (Tons/Hr)	Unit Operation (minutes)	Coal tons/hr ([tonnes/hr])	PM-10 (Lb/Hr)	PM-10 (Lb/Hr)	Lead (lb/hr)	Mercury (lb/hr)	HCl (lb/hr)	HF (lb/hr)
05-14-2015 04	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 05	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 06	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 07	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 08	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 09	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 10	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 11	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 12	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 13	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 14	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 15	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 16	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 17	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 18	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 19	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 20	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 21	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 22	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-14-2015 23	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 00	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 01	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 02	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 03	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 04	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 05	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 06	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 07	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 08	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 09	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 10	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 11	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 12	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 13	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 14	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 15	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 16	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 17	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 18	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 19	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 20	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 21	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 22	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-15-2015 23	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-16-2015 00	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-16-2015 01	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0
05-16-2015 02	0	0	0.00000	0.0	0.00000	0.0	0.00	0.00	0.00	0.00	0.00000	0	0.00000	0